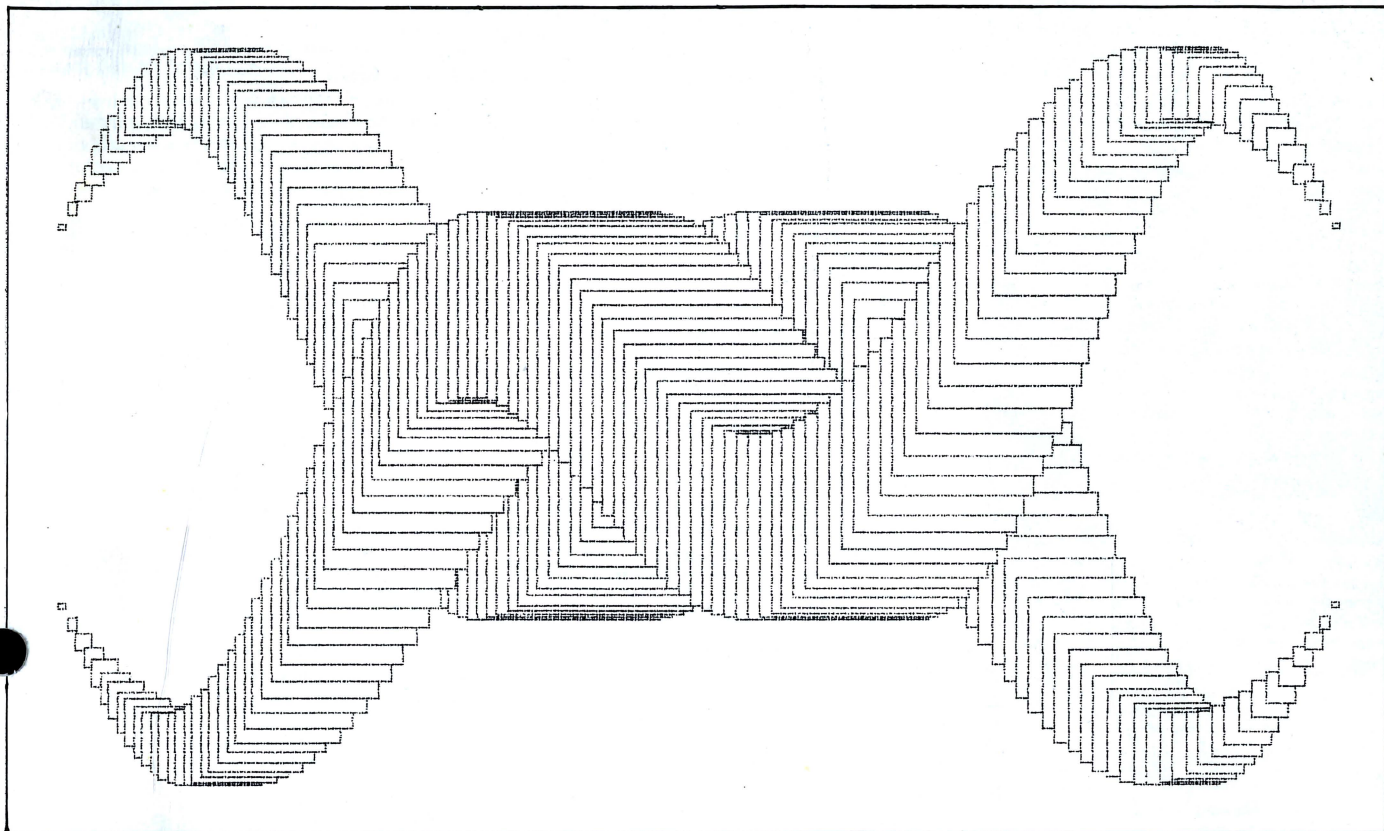


EPSON Connection

VOL II / No. 3
May/June 1984

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As you watch the growth of our "newsletter" into a full fledged publication, one gets the feeling that the Epson computer owning community is expanding. It is exciting to see the numbers of companies now producing products for our Epsos. Our publication will be going monthly with the next issue, and four color as well. With the increase in numbers of issues you will be receiving, the new renewal rate will be increased to \$24. We are also branching out more and more into the international waters, and have become an International Epson Users Group. We are currently planning and preparing for an "Epson Around the World" issue for the fall. The many uses of the Epson computers around the world are fascinating. The software and hardware offered in the various countries certainly demonstrates the flexibility of our computer. We are eagerly looking forward to the new products planned this year, and to our own growth with you. The continual learning and sharing going on within our Epson computer community is exciting to experience. I

think the feelings expressed by many about feeling alone and being angered by the lack of support have been valid in the past. This certainly is becoming a thing of the past as the proliferation of users groups, their affiliated newsletters, and the Bulletin Board networks reach out to help keep other users in the know. I hope we can begin to blend our efforts in an Epson Owners Network of some sort. The EpsonNet RBBS/RTPM has continued to grow and will be translated for use in various foreign language areas of the world. Plans for an International Users Group conference as well as one on Valdocs are moving forward.

We will be doing a series of articles over the rest of this year on On-Line Databases. Next month I will be reviewing the various graphics packages now on the market for the QX-10. We are now offering the public domain programs from our RBBS EpsonNet on disk. This will be listed monthly in the future for those wishing collections of the software.

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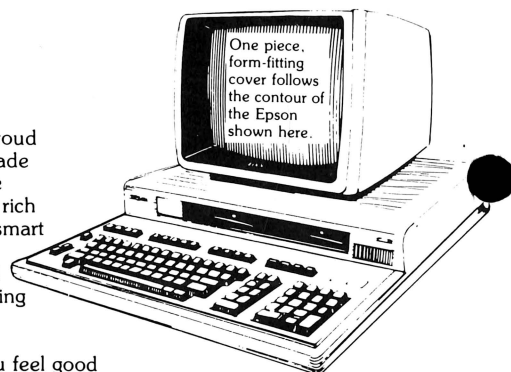
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FACTORY DIRECT

"Just about every conceivable question that a reader might have will be found [answered] somewhere in this book."

The Epson Connection
March/April 1984

Epson owners are talking about ...

The Epson QX-10 User's Guide published by Scott, Foresman and Company, March 1984, is hot off the press, and is causing quite a stir among Epson owners. It's no wonder too. The author, James M. Hansen, is an independent

consultant and professional hardware and software engineer, and is uniquely qualified to thoroughly explore and explain the architecture, capabilities, and uses of the QX-10. This lavishly illustrated book has 80 photos and takes you on a grand tour of your Epson's unique internal and external features. The author explains how to make the Valdocs operating system, and the CP/M and TP/M II operating systems work. In addition, Hansen expertly teaches how run basic programs, create business graphics, use Peachtree Software, and much more.

The 256 fact-filled pages of *The Epson QX-10 User's Guide* are jam packed with complete, accurate information and technical advice that makes this book an invaluable tool. Hard facts explored here include advice on the selection of printers, modems, speech synthesizers, and unique expansion cards that enhance the Epson's built-in capabilities. If you want to learn more about your QX-10 and how to get real computing power from it, put this book on your desk. It pulls no punches. Our price for this extraordinary book is only **\$17.95**. Order today to get this book fast.

PANAMAX SURGE SUPPRESSORS

Description	List	Price
2 outlets, D	\$89.00	\$59.95
2 outlets, D NF	\$109.00	\$69.95
4 outlets, LC S	\$107.00	\$79.95
4 outlets, LC S NF	\$127.00	\$99.95
6 outlets, LC S RB	\$124.00	\$99.95
6 outlets, LC S RB NF	\$144.00	\$109.95

D: Connects direct to grounded wall jack.
LC: Includes 6 foot long heavy duty line cord.
S: Includes illuminated on/off switch.
NF: Includes EMI/RFI noise filter.
RB: Includes reset button.
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Unique Panamax EMI/RFI noise filters provide protection in common and transverse mode. Essential for modem communications, multi-user stations, etc.
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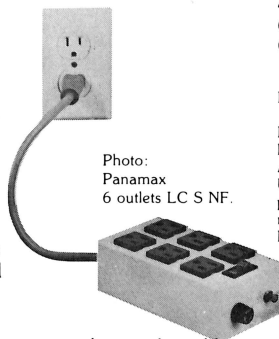


Photo:
Panamax
6 outlets LC S NF.

"Power line-associated problems are estimated to cause nearly 70 to 90 percent of the malfunctions in the IBM PC."

"Overvoltage can be fatal to both data and hardware alike."
P.C. Magazine, March 1983

200 Watt Protection

Power failures and power interruptions can zap your QX-10 and destroy files you've worked hard to collect. PowerMAX protects sensitive electronic equipment from line disturbances and provides battery backup power in the event of power interruptions or failure. PowerMAX offers top-quality surge suppression, maximum power protection, 200 watts output for 15 minutes, an operating status alarm and indicator, and a maintenance-free rechargeable battery; all this encased in an attractive cream-colored metal case. Installation of the PowerMAX unit is quick and easy. Plug your computer and hard disk drive into the output sockets on the back of the unit. Insert the PowerMAX powercord into any AC wall outlet and flip the switch to the ON position. The PowerMAX can feed your QX-10 and a ten meg hard disk clean power for more than 15 minutes after a complete blackout. You have plenty of time to save your present file, open the disk drives, store your disks, and safely shutdown the system. Without loss of data or injury to your computer or other equipment you've hooked in the PowerMAX. The full retail price of the PowerMAX is \$459. Compare this to units that provide 5 minutes of backup power and cost \$695 or more. The PowerMAX is better. Central's price is \$379. Order today and put your power-worries to rest.

To the Editor

Dear Editor:

I just received my March/April issue of the EpsonConnection with your interesting article on the current evolution of Valdocs.

For most of us, this is our first computer system, and the basis on which the Epson QX-10 was most strongly sold was the ease of learning to use it, along with Valdocs being all the software we would ever need to accomplish most of our various tasks. When reading the documentation for Valdocs, it almost encourages one to ignore the documentation, proceed to just type away, and if one has a question as to what to do next, simply push the HELP button and all our questions would be answered. That worked great for the first week, and if all we ever needed was a low level word processor, without such nicities as mailmerging, quick editing, etc., I'm sure none of us would have anything to complain about.

Some of us bought from dealers that were not interested in providing after market support, didn't really know anything about the capabilities of the system, and never let their customers know about updates, bugs in the software, or make sure that we were tied into sources of information and support, such as the EpsonConnection, which wasn't even mentioned when we bought our systems. Complaints you may have received about Valdocs are simply a symptom of the problem of the Epson/Rising Star marketing approach to Epson/Valdocs and the almost total lack of help we users have been faced with in an attempt to better utilize our \$3,000 plus investment to more of its potential capabilities.

It seems a shame that an organization supposedly dedicated to enhancing the ability of people to work more efficiently and effectively and to even change the very way we look at accomplishing our various tasks, has so neglected to communicate properly with the people who bought the Valdocs promise, by not using its dealers, distributors, and certainly the parent organization, to provide the needed support.

Most of us involved with our Epsos are professionals in our respective fields, and are tuned to either supplying and/or receiving results. As a member, speaking for a newly forming User Support Group, we want to see Epson/Rising Star succeed with their

software concept and support as much as they have succeeded with the production of a superb piece of hardware. We still have the faith; please don't let us down.

Stewart Davis
District Manager
Aro Corporation
Syracuse, New York

Dear Stewart:

I feel that Valdocs is the first step into the new frontier of user friendly integrated software. Any new product takes evolutionary steps in development, and this step is perhaps an insight to the greater things yet to come. It is indeed hard to wait. Your feelings of lack of support from some dealers is shared by many. I think that many of your mentioned problems will be answered with future releases of Valdocs. I hope the dealer support will also improve as the software stabilizes. I certainly hope that Epson will take more notice of yours and others concerns in this important area. I hope that you will appreciate that this problem is not unique to the Epson QX-10. Computer dealers carry more than one brand of computer and some have failed miserably in their after sale support. The ultimate goal of integrated software is to minimize the need for outside support and reduce the fear of dealing with a computer. I personally feel that the QX-10 is the only computer that is seriously bridging this gap.



There has been a nationwide name change occurrence amongst the Epson Distributors. Their names are now reflective of the product and area of the country they are located in, for instance Epson America Northeast (C&C Computer Concepts), Epson Great Lakes (Microprocess Computer Systems), Epson Pacific (MBC Marketing). There are a total of 12 Epson distributors across the United States taking care of specific geographical areas.

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The EpsonConnection is a bi-monthly publication distributed internationally to Epson users, owners, dealers & distributors. Subscription fee is \$24.00 U.S., \$30.00, Canada (U.S. funds), for one year.

All inquiries regarding subscriptions, editorial suggestions, problem solving; questions, programs or information about forming a local Users Group should be sent to: **The EpsonConnection, P.O. Box 14027, Detroit, Michigan 48214, (313) 822-0090.**

All inquiries regarding advertising are to be directed to: **The EpsonConnection, P.O. Box 184, Novi, Michigan 48050, (313) 348-9413.**

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News Notes

There is a new Epson supported users group society in Canada. The first issue of their newsletter, called EPS'N LINK, was issued in March. We welcome their new group "The Epson Computer Society of Canada" and their editor and organizer Rene Laviolette. He may be contacted at Microtrend Business Systems Ltd., 10161 Sheppard Ave. East, West Hill, Ontario, M1B 1G1.

Exciting news internationally is that the QX-10 is the number 1 selling personal computer in Venezuela. Valdocs/Spanish is an exciting event for the South American computer market.

There will be a 1.19 Valdocs update which is not viewed as a major release from Epson America. It will clean up some of the problems with losing your index, and some of the printer problems. It will take a few weeks to get into full circulation, and will be available through the dealer network.

Exciting news on the campus of Drew University is that they are providing each entering student with a QX-10. All 400 of the entering freshmen in 1984 will be QX-10ers. Drew University is a small liberal arts college located in Madison, NJ. Faculty initiative was responsible for this development. A dozen different systems were considered and the QX-10 was chosen. The reasons for choosing the QX-10 were for its capabilities, ease of use by non-technically oriented people, and for the interest and support provided by Epson. The students will receive the QXPC board and PeachTree Software as well as Valdocs. Each dormitory room is being equipped with a printer. Software for at least 10 Freshman courses is currently under development. Students will be allowed to take the computers home over vacations and will keep them upon graduation. Special pricing has been arranged for upperclassmen who also wish to purchase the computer. Workshops and advanced training are part of the package of support, with on call maintenance available. All faculty members will also have QX-10's, so submitting term papers on disk is a real option. Our hats are off to you at Drew for making this excellent choice.

CP/M-B "What is it?"

by Carolyn McCarthy, Editor

CP/M-80 (control program monitor) is one of the operating systems the Epson QX-10 uses. The originator of this operating system is Digital Research, Inc. It represents the heart of a schema for operations within the computer, and for operations carried on with outside elements, like a keyboard, monitor, and printer.

Some may never feel the need to leave the safe and easy world of Valdocs. Valdocs is the creation of a unique group of individuals working for Rising Star Industries. It is a forerunner in the industry of what is referred to as "integrated software". Valdocs runs under a different operating system from CP/M called TPM. Valdocs has many special features, like a built-in word processor program (the editor), graphics, telecommunications, mailing list, schedule and so on. These are all encompassed into one complete package. Most CP/M programs can be run under the TPM operating system, but the special easy to use features of the HASCI keyboard, like bold, italics and index, do not work with them.

There are multitudes of CP/M programs, but they lack the type of integration and ease of use we know in Valdocs. There may be some specialized programs which you do not have available with Valdocs, which are CP/M programs that you wish to use. Wouldn't it be nice if they could also take advantage of the HASCI keyboard features like INDEX, MENU, PRINT, HELP. The new "B" release of CP/M allows you to take advantage of many of the special features of your QX-10 with existing CP/M programs.

The world of CP/M is one of the oldest operating systems in the micro-computer industry. It was designed for use with computers using only 64K of memory. The QX-10 model, sold predominately in the United States and Canada, comes with 256K of memory. This means that when using CP/M we have only been using a small part of the memory available. The new release CP/M 80 Version B2.20 from Epson America and Digital Research represents a step toward maximizing the resources available in our QX-10 CP/M world.

How does it allow the use of more memory? In the 256K model of the QX-10 there are 4 different banks of memory. It is like having \$64,000 in 4 different banks. The money is accessible only if you have the right account numbers and identification. This new version B release is able to transfer between banks, called bank switching. This increases the total amount accessible in any transaction to more than \$64,000. The total accessible now is 232K (or \$232,000). What happened to the other \$24,000? Consider it operating expenses to keep things flowing.

There are four different memory banks

Now that we have the use of all this additional memory what does it mean for us? It will depend upon the application program we are running as to whether it can make use of the additional memory or not.

Let's look at some of the features included in this new CP/M B release.

1. CP/M B makes use of more of the memory available in the QX-10. This is unfortunately not user controllable or selectable.
2. There is a program included which creates a 112K RAM (random access memory) disk area in two of the four memory banks (2 and 3). This is the approximate equivalent of 35-40 pages of text. *NOTE— data and programs in RAM memory are lost when power is either turned off or lost. Data may also be lost or altered in RAM memory if you reset the computer.
3. Added is the ability to do a screen dump by pressing the control and "print" keys. This will print out all graphics on the screen including pie charts and circles as they appear on the screen. *NOTE— text will be printed double height.
4. Programmable function keys. You can reprogram your special file control keys to print a whole word

with one push. For example, you can have the INDEX key cause the word DIR (rtn) typed out by the computer.

5. There is a unique indexer program which is a fancy file management utility for copying, deleting and renaming files.
6. There is a feature for reading some other disk formats from other computers via the SETUP program. These include: IBM (CP/M 86) single and double sided, double density, MFCP/M double sided double density.
7. TYPING CTRL GRAPH SHIFT AND STOP KEYS— RESET THE COMPUTER
8. There are graphic drivers for application programs.
9. A modem program— MTERM— which currently doesn't support Christenson Protocol— and, therefore cannot be used to call into the bulletin boards. This program is primarily suited for use with main-frame computers, like Source and CompuServe. It allows communications with company computers and is ideal for those working from remote locations wishing to communicate with their office computer equipment.
10. The screen goes to sleep after a time period of inactivity as in TPM.
11. There is a CPM2.SYS file which must be on the new CP/M B disks. This is a 52K file which contains the operating system for CP/M B. It has the BIOS, BDOS, and CCP. The only thing stored on the tracks 0 and 1, is a preloader program that loads the operating CPM2.SYS file into various areas of the memory banks.
12. There is a greater support of options for the parallel port. Printers supported include all the MX, RX, FX, and the three comriters, I, II, and III. Single sheet mode and bit 7 masking are selectable options. *NOTE— to eliminate the problem of paper out when using the cut sheet paper, select the Single sheet mode, and turn the paper out switch off in the printer.

COMPATIBILITY

Compatibility is an important point to consider in this rapidly changing technological age. The only keyboard to be supported with this is the HASCI keyboard. Most CP/M programs will run with this new "B" version.

One "bug" noted by user Mike Dilbeck concerns programs using shifted function keys. CP/M B comes with a new PT.COM program to install, for using the PeachText 5000 series, however, it doesn't work with the Series 9 PeachTree products. See the user suggestion contributed by Mike at the end of this article.

These new Hascii software packages are **not** compatible with TPM-II.

MBASIC by Microsoft is unchanged. The programs will still only work with 1 bank memory, and it does not have any graphic commands built in. When running MBASIC under the 2.21 CP/M release A, a message is displayed that indicates that 30,735 Bytes are free. Under CP/M B the message indicates 33,295 Bytes are free.

Chart 1

	Floppy Disk	Ramdisk
Squeezing a program	105 sec.	75 sec.
Unsqueezing a program	75 sec.	50 sec.
Delibrating a 16 K file	2 min.	3 sec.
Delibrating a 36K file	3 min.	5 sec.

FEATURES OF A RAMDISK

What on earth is a RAMDISK? A RAMDISK is actually not a disk, but a RAM memory which is used like a disk by the computer. The reason programs operate so much faster in a RAMDISK environment is that the reading and writing as performed on a regular disk is also carried out on the RAMDISK, however, there are no mechanical parts involved in seeking the right sector on the disk. Therefore, the access time is almost instantaneous from memory chip to memory chip, and then to the screen.

In reviewing a RAMDRIVE program, Mike Dilbeck found the differences shown in Chart 1. He did

some comparison tests to demonstrate the effectiveness of a RAMDISK.

There are full dedicated Ramdisk internal cards under development for the QX-10, and, in fact, the QX-PC board by Titan Industries can be used by a knowledgeable programmer for that purpose. Wouldn't it be nice to run Valdocs or full database programs in such an environment where processing would fly faster than we can type or even think?

In conclusion, I feel the CP/M-80 B Release is a positive addition to one's QX-10 operating environment. You can now put this system on all your CP/M program disks and customize the special function keys to enhance each program for easier use.

PEACHTEXT SERIES 9 & CP/M-80 B RELEASE

by Mike Dilbeck

The new CP/M-80 B for the QX-10 has many nice features. It also has a serious bug that prevents the use of any CP/M program requiring the use of the SHIFTED function keys.

I discovered this while trying to run my Series 9 PeachText. If you have PeachText, you either have Series 9 or PeachText 5000 which is the new improved version. CP/M-80 B includes a new PT.COM program but it doesn't work with Series 9.

The bug is caused by the new CP/M not having the shifted function keys enabled. You can see the difference by booting up with CP/M-80 A and hitting the function keys.

To make the system work, you will need to use SETUP in CP/M-80 B and select CUSTOM keyboard (option C). You then need to enable each of the keys and each key return. Before you select the next key, you enter key string shown in the CP/M A and A shifted columns above. Note that the Control-A is the first character of each two character-string. For example, in entering the UNDO SHIFTED string, you would press Control-A and small 'c' then hit the return key. After entering all the

KEY	CPM A	A SHIFTED	CPM B	B SHIFTED
STOP	^A@	^A	NONE	NONE
HELP	^AA	^Aa	^A@	"
COPYDISK	^AB	^Ab	^AA	"
UNDO	^AC	^Ac	^AB	"
STORE	^AD	^Ad	^AC	"
RETRIEVE	^AE	^Ae	^AD	"
PRINT	^AF	^Af	^AE	"
INDEX	^AG	^Ag	^AF	"
MAIL	^AH	^Ah	^AG	"
MENU	^AI	^Ai	^AH	"
CALC	NONE	NONE	^AI	"
SCHED	NONE	NONE	^AJ	"

key information, exit to the main menu and select P for permanent change of the keyboard.

One addition to the above chart would be to add a Control-Z to allow the Thesaurus to operate. This was the LINE key on CP/M A, but it is not implemented on the B release. An alternative is just to remember to hit ^Z when you want to use the Thesaurus.

Other changes include: the [X>key is a delete to the left function; WORD is the home key; LINE is a linefeed. I don't know if these are normal CP/M or not, but they are different from the A release.

This should allow you to use your existing CP/M application programs (those not HASCI enabled) until a fix is made available for PeachText 9000. If a fix is made you can then customize your keyboard as desired, and use HASCI to Televideo 920 for non-custom applications.

Another problem is that the function keys are not typamatic, that is, they don't repeat as long as you hold the key down. This prevents using line delete (shift-store) with PeachText.

Tour of Online Databases

by Bob Herman

One of the most interesting aspects of owning a personal computer is the ability to literally go online with the world. With your computer, modem, the appropriate communications software, and usually some sort of financial investment, you have access to services such as shopping, banking, games, and software development. Access to free software and information on your personal computer unlocks opens the door to an almost unlimited amount of information on just about any subject imaginable. Unfortunately, the toll for going through the door may be quite steep, and the path to the specific information desired may not be clearly mapped. In this series of articles we hope to provide an outline of what the different databases offer, along with more specific information on how to actually use the Epson computers to go online with specific databases.

The capacity to go online means that you can access Computer Bulletin Board Services, such as that offered by the EpsonNet, where one can exchange public software and useful information on operating both your hardware and software. You may 'talk' with your business computer. You may communicate with other individuals similarly equipped. Or you may access one of the online databases. In this and forthcoming articles an outline of the available information services will be given. We will provide details on how to access and use specific ones, hopefully decreasing the 'toll' charges and providing understandable directions.

For classification purposes, we will divide the online databases into three categories: general purpose, business and professionally oriented, and encyclopedic databases services. The accompanying diagram (Figure 1) is by no means complete, but at least provides an overview. The general purpose databases differ from the other categories in that they supply not only information, but also services such as shopping, banking, games, information storage, and bulletin boards. The information that they provide is usually not as detailed as that obtained from either of the other two categories. The business and professionally oriented databases offer

topics including stock market information, accounting, finance, banking, medicine, commerce, photography, and agriculture.

The encyclopedic database services shown on the diagram (Figure 1) are actually "delivery mechanisms" offering access to hundreds of different specific databases (such as Medline or ERIC). As the figure indicates, some of the specific databases are available on only one or two of the services, while others may be on all. Information gained online from the encyclopedic databases is most commonly in the form of abstracts or citations. There are additional charges for mailing reprints of entire articles.

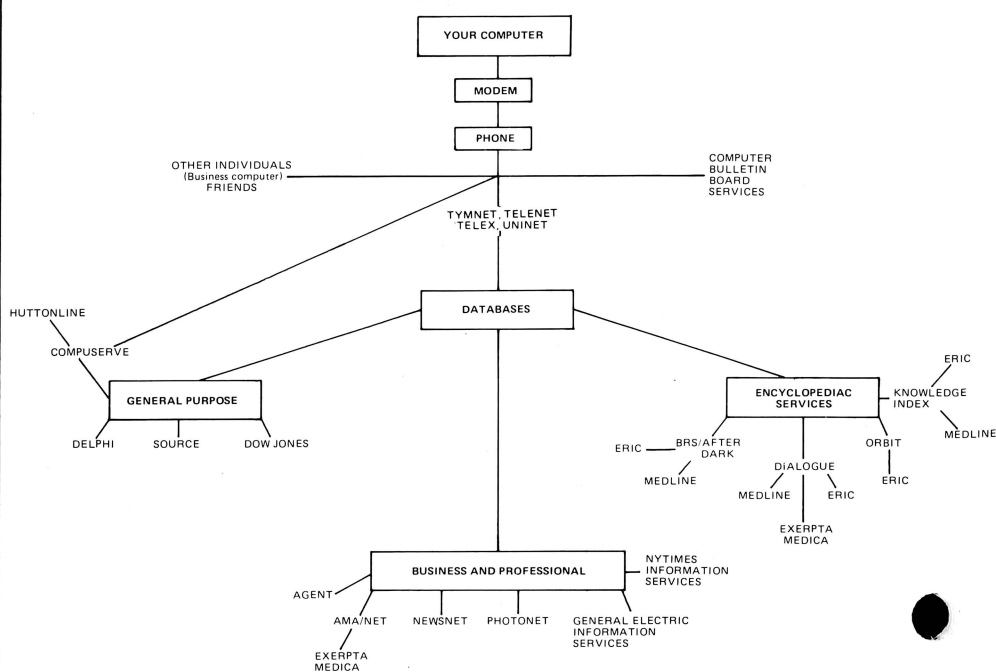
"Okay," you may say, "this is all well and fine, but how do I go about using some of this 'unlimited information' that you claim is available?" The following chart (Table 1) contains customer service numbers of selected databases. Use these numbers to call the respective services to obtain further information or contracts and other details that are necessary to initiate service. The table also contains other

useful information. A complete listing of available services would occupy at least several pages of this journal, thus rendering its presentation impractical. Complete database directories may be obtained from the following sources:

"Omni Online Database Directory"
Macmillan Publishing Co.
866 Third Ave.
New York, NY 10022
Price: \$10.95

"Videoprint"
International Resource
Development Co.
30 High Street
Norwalk, CT 06851
(203) 866-6914
Annual subscription \$155 for 24 issues

"Datapro Directory of Online Services"
Datapro Research Corp.
1805 Underwood Blvd.
Delran, NJ 08075
800-257-9406
Annual subscription \$390



ERIC— Educational Resources Information Center

Figure 1

Table 1

SERVICE AND COMPANY	CUSTOMER ASSISTANCE	SIGN UP FEE	ACCESSORIES NEEDED TO START USING	HOURLY CONNECT FEE	ACCESS TIMES	REMARKS
BRS/After Dark Bibliographic Retrieval Service 1200 Route 7 Latham NY 12110	800-833-4707	\$75	None (sign up fee includes documentation)	\$6-\$20 depending on database (\$6 connect fee + respective royalty for each database)	M-F 6PM-4AM Sat 4AM-4AM (Sun) Sun 4AM-2PM 7PM-4AM (Mon)	Minimum monthly charges - \$12 Charges include telecommunications No rate diff for 300 or 1200 baud
CompuServ CompuServ, Inc. Information Services Division, 5000 Arlington Center Blvd. Columbus, OH 43220	800-848-8199					
DATANET Datanet, Inc. 4515 Cuyler Rd. Rochester, NY 14622	716-323-1141	None	None (documentation provided with password)	\$3.90 @ 300 baud \$5.70 @ 1200 baud	M-F 6PM-6AM All day Sat and Sun	Minimum monthly charges - \$5.00 Tymnet charge - \$2/Hr.
Dialogue Dialogue Information Services 3460 Hillview Ave. Palo Alto, CA 94304	800-227-1927 800-982-5838 (in CA)	None	Guide to Dialogue Searching - \$55		Prime time 6AM-6PM Non-prime time 6PM-4AM	Same rate for 300 and 1200 baud Communications charge (Telenet or Tymnet) \$8/Hr. Offer training sessions on how to search
Dow Jones News/Retrieval P.O. Box 300 Princeton, NJ 08540	800-257-5114	3 Types 1) Standard 2) Blue Chip 3) Executive	None (documentation included with sign up fee)	Varies with database (up to \$80 for prime time and \$18 for non-prime time)		Communications charges included Double given rates for 1200 baud
GTE Telenet Medical Information Network (AMA/NET) 8229 Boone Blvd. Vienna, VA 22180	703-442-2500	\$100 subscription	None (documentation included with sign up fee)	\$25-\$39 depending on database	24 hr.	
Knowledge Index Dialogue Information Services 3460 Hillview Ave. Palo Alto, CA 94304	800-227-5510 (except CA) 415-858-3796 (collect in CA)	\$35	Sign up fee includes documentation and 2 hrs. of online time	\$22	M-Th 6PM-5AM F 6PM-Midnight Sat 8AM-Midnight Sun 3PM-5AM	Includes telecommunications charges Billed only through credit cards
Newsnet 945 Haverford Rd. Bryn Mawr, PA 19010	800-345-7229 215-527-6689 (in PA)	None	None (documentation included with sign up fee)	300 baud-ave \$24 1200 baud-ave \$48	24 Hr.	Minimum monthly charges - \$15.00
ORBIT Orbit Information Retrieval Services SDC Search Service 2500 Colorado Ave. Santa Monica, CA 90406	800-421-7229 800-352-6689 (in CA)	3 Types 1) Self-instruction-\$125 2) Workshop- \$200 3) Custom Workshop- \$450	None (documentation included with sign up fee)		M-Th 6:45AM-7:15PM F 12AM-5PM Sat 5AM-4PM Sun 4PM-Midnight	Communications charge - \$8 to \$10/Hr.

"Directory of Online Databases"
Cuadra Associates
2001 Wilshire Blvd., Suite 305
Santa Monica, CA 90403
Annual subscription: \$75

From Figure 1 we see that to enter the various databases (except CompuServe), it is necessary to go through a services such as Telenet or Tymnet. These are "packet switching networks" that allow access to the aforementioned services with a local phone call. A charge may be included with the cost of the database involved, or an assessment of an additional \$2 to \$10 an hour. The use of these services is "transparent", but you may obtain information that could increase the effectiveness of your communications—information on flow control and file up-loading efficiency.

Telenet 800-336-0437
800-572-0408 (in VA)
Tymnet 800-336-0149
800-323-7389

When using any of these databases remember that the response time will be slow compared to that when dealing with the computer alone. It is also good to keep in mind that your command syntax must be accurate. Each service and each database has its own idiosyncrasies. It is further recommended that a serious telecommunicator keep a notebook with separate sections for each contact made, indicating not only the communications protocols and passwords used, but also any other information that may simplify future connections.

In future articles, we intend to give detailed information on the use of Dialogue, Dow Jones, BRS/After Dark, and Knowledge Index, as well as a discussion of what the medical profession has available online. Reader input will help influence the future topics covered.

HX-20 ELECTRONIC CARD FILE

Demonstrated at the Comdex Show by QuickView Systems, Inc. was a Rolodex-like index card filing system for the HX-20. Currently called ViewDex, the product will be distributed by Epson America in the spring of '84. Sixty-five to one hundred cards can be entered into the system which uses a ROM chip. With expansion memory, you can enter up to 200. The cards can be searched in multiple modes, noting that there are 110 characters in a field space. The program is menu driven and allows the entire card to be compressed for viewing on the screen.

Future products from QuickView will include: ViewExpense, an accounting package; ViewSales, a sales order entry program; ViewDay, a desk calendar; ViewTime, time accounting for the lawyer and accountant specifically; and ViewCheck, for writing checks and balancing checkbooks. For more information contact, QuickView Systems, 146 Main Street, Suite 404, Los Altos, CA 94022.

Disk 'n Dat

by Ralph Ruh

I would like to begin by commenting on what the purpose and objectives of this column will be. I will attempt to keep you informed of any new features of the TPM operating system that come to my attention, discuss other operating systems that become available for the QX-10, provide you with brief descriptions of the various programs that are available on the EpsonNet bulletin boards and generally comment on industry trends and how they may affect you as a user and consumer.

With that out of the way, let's proceed onward, and hopefully upward, with some of my observations. One of the hall-marks of any successful computer system is the availability of good quality third-party software. Many of you may have already noticed that the QX-10 is receiving a great deal of attention from many of the large software houses. You can now choose from a long list of excellent data base programs, spread-sheet programs and a good selection of graphics programs that fully access our NEC 7220 chip. There are also a number of very popular wordprocessing programs available that will run on the QX-10 if you are so inclined.

The industry seems to be moving toward the so-called 'Integrated Software' trend. I wonder where they got the idea! Could it be possible that the Epson QX-10 with Valdocs has quietly influenced an industry trend? The other trend is the big rush to become "IBM compatible". In my opinion this is very misleading to the general public, especially when you consider that it is virtually impossible to be totally compatible with the IBM. IBM has the copyrights on their basic I/O. There must be a better and more correct way to describe an attempt to be like the IBM. Frankly, the idea of, "if you can't beat them, join them," doesn't sit well with me. If I had wanted my computer to be like the IBM, I would have bought an IBM.

In this issue there is a review of Epson's latest release, the new and much improved CP/M operating system, CP/M-80 Release B. There may also be available by the time you

read this, an interesting addition to the stable of disk operating systems called 'DOSPLUS IV' by Micro-Systems Software, Inc. This disk operating system emulates a 64K TRS-80 Model 4 computer. It will allow the execution of any software available for the Model 4 that uses only the DOS supervisor calls, with the possible exception of the graphics characters. Software that directly accesses the Model 4 hardware will not function on the QX-10. I have had a limited opportunity to work with this system, however, it looks like an interesting addition, and should open up opportunities to Epson owners for much of the educational software available for the Model 4.

In the last issue I gave you information on how to create your own TPM operating system. I hope you have been able to find ways of using this remarkable system to your benefit. Please feel free to send in your comments and ideas, so that I can share your suggestions with others.

I would like to continue last issue's discussion regarding Public Domain programs which can be obtained from many of the EpsonNet bulletin boards.

LISTFX.COM— Utility program that will allow the listing of any document directly to a printer. Permits right and left margin settings as well as date and title information.

MFT.COM— Utility program that allows you to place a frequently used program like SD.COM on several disks. You don't need to keep PIPing, just run the program and keep feeding as many disks as you want the utility to be placed on.

NI.COM— Another variation of the super directory type programs. It has many useful features and a built in help screen that can be accessed by typing NI/H RET . My personal preference over all other directory programs.

WCOUNT.COM— A program that counts the number of words in a document. Should be very useful to authors and anyone who wishes to determine how much space a document will use. For accuracy, a Valdocs document should be run through

the Deval or Asc program to remove the control codes.

FXPRINT.COM— A program to set the print font of any Epson printer with grafrax. Self documenting and very easy to run and use.

WIPE.COM— Nifty utility for assembly language programmers. Automatically erases .HEX, .PRN, .SYM files from your work disk after final assembly of your program.

SWEEP.COM— A disk management program which permits extensive disk maintenance, similar to DISK.COM except that it will only run under the CP/M operating system.

ALTDISK.SYS— Disk re-formatting program which will permit you to read and select a few popular disk formats other than the Epson QX-10 format.

There have been many requests for Public Domain programs available on the bulletin boards by those who do not own modems. With this in mind, we will be offering for sale some of the more requested programs on disk. We will be publishing a listing of programs and a catalog number for each disk. We will not be able to provide single program requests due to the expense involved. Stay tuned for this information.

This concludes this month's thoughts and comments. If you have any particular questions or subjects that you would like to discuss, let us know and we will try our best to give you the help you need.

CORRECTIONS:

The correct prices for the "TPM-II Users Guide" is \$18.00 and "Programmers Guide to Valdocs" is \$21.00. These are books available from Rising Star Industries, 24050 Madison Street, Suite 113, Torrance, CA 90505.

The BINGO program review last issue is a product by Software Riches for the HX-20. Contact Jason Rich, Riverview Terrace, Irvington, NY 10533.

The making of a successful software package.

First in a series of articles featuring pioneers of innovative concepts in the software industry. This issue's guest spot highlights: Hong Liang Lu, president of Unison World, Incorporated. Unison is one of Acorn Publishing's largest software development houses.

Q: Hong, your company has captured a top 10 percent position among the 200 companies vying for the Japanese video game market; to what would you attribute this success?

A: Well, it's probably because Unison works as a team with Japanese companies to ensure that we understand what they want. We also look at what's happening in the U.S. market since the Japanese tend to follow its lead.

Q: What trends have you observed in the U.S. market?

A: We've been watching this market pretty closely so we can develop the proper packages to suit the multiple needs of many different users. We're finding that people are seeking packages that enhance the productivity and usefulness of their hardware systems. They are also looking for products that the entire family can use. A software package can be easy enough for first-time users and, at the same time, effective enough for those in business.

Q: Is there a typical process for developing a software package?

A: Yes, I'd say that there is a general pattern that flows from the drawing board to the video screen for each product we design. We always start with

a spec which is developed either by a programmer, a non-programmer or myself. The spec defines what we're going to do and generally takes anywhere between one and two months to develop. Then, the next step is to coordinate the efforts of a graphic designer, programmers and a sound editor. The development process is complete when quality control has tested the final product for bugs and level of difficulty. In the final and most important step, we rely on the expertise of a software publisher to package the product and bring it to market.

Q: Do different kinds of products necessitate the services of specialists to work with the development team?

A: Certainly. With "Music Editor" we hired a musician to create songs and edit versions of traditional scores to use in this package. This same musician also writes the manuals that teach users how to play and to write all types of music including classical, jazz, pop and rock.

Q: How do you help generate fresh ideas and keep them coming through the pipeline?

A: Designing software is an art. The creative process must be nurtured since it is not as controllable as a hardware assembly line. That's why I let programmers choose their own hours anytime 24 hours a day, 365 days of the year. I want to enhance not restrict their creativity.

Q: Could you state what the most important feature of a software package is to you?

A: Ease of use and the ability to run on a multiplicity of hardware.



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Let's Talk About ZPIP

by Carolyn McCarthy, Editor

ZPIP is one of the utility programs that works under the TPM operating system. It is on the same idea as the PIP (peripheral interchange program) in CP/M, but much more powerful.

What does it do? It is a program that gives you file handling abilities, like copying files from one user area to another, from one disk to another, change the file names, delete files, etc.

Where do you get ZPIP.SYS? It is a product of Computer Design Labs (C.D.L.) which became part of Rising Star Industries this past December 1983. When you order their books "A Programmers Guide to Valdocs" and "The TPM-II Users Guide" you will receive a disk with the TPM-II utilities on it. This ZPIP program is also available on some of the EpsonNet RBBS boards.

To use it type ZPIP without the extension at the drive prompt, eg. A>ZPIP (CR). You will see an asterisk * waiting for your input on the next line. You are now in the ZPIP program in an interactive mode. Enter the following:

*;H (CR) and you will see a help screen.

Now that you are seeing stars (*), let's discuss some of the features of ZPIP, and what you can do with it.

Using ZPIP in Direct Mode— ZPIP can be used in a direct mode without running it first, just type ZPIP, a space, and the commands desired at the drive prompt. Outlined here are some of these commands, and example uses illustrated in the direct mode. All these will also work by entering the ZPIP mode and typing the command following the *.

Copying files— To copy files from one disk to another it works like PIP. COM— you type the DESTINATION DRIVE (and user area if desired) followed by a colon and = and the SOURCE DRIVE (and user area) also followed by a colon and the complete filename with extension. To copy a file called hello.bas, from the A drive to the B drive it would go as follows:

A>ZPIP B:=A:hello.bas (CR)

You will see it indicate the filename as it is executing the copy. This does not erase the file on A, but just puts a copy of it on B.

Copying several files at a time— We can copy many files at the same time by separating them with commas as follows:
A>ZPIP B:=A:hello.bas,mbasic.com, print.bas,copy.sys. We can also copy files from different drives in the same manner as long as we specify the source drive with the filenames.

A>ZPIP B:=A:hello.bas,C:mbasic.com, D:copy.sys

If you have a hard disk, this will take programs from the A drive, C drive, and D drive as indicated above and put them all on B.

Copying all the files— We can copy all the files from one disk to another (or user area to another) by using the wildcard (* is treated like a wildcard).

A>ZPIP B:=A:*. * (CR)

This will copy ALL the files on A and make a copy of them to B. If we wanted to copy all the files from all the user areas from A and put them on B we would use the following:

A>ZPIP B:=A:*. *. * (CR)

Copying all files of one type— We can copy all the files that have the same file extension ending, for instance:

A>ZPIP B:=A:*.bas

This would copy all the files that have the .bas extension from A to the B disk.

Copying between User Areas—

(*Note: if you are not familiar with User Areas please read about them in the March/April issue page 14.) We can use copy files from one user area to another by inserting the user area after the drive designation.

A>ZPIP B2:=AO:hello.bas (CR)

This then copies the program hello.bas from drive A user area O to drive B user area 2. We could instead have copied it from user area AO to A6 with the same process. *Note: When you have programs in different user areas on the same disk, using the dir command to list the directory will only give you a listing of the files in the user area you are currently in. To see a listing of files across all the user areas you will need to use the command A>d *:a (CR) or a TPM utility called LIST.SYS. A>List *: *. *

Changing the name of a file while copying it— The trick here is to simply indicate the new name following the destination drive, and the current name with the source drive.

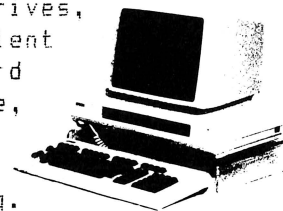
A>ZPIP B:greeting.bas=A:hello.bas (CR)
This will copy hello.bas from A and rename it to greeting.bas and put it on the B drive. This can be used to rename files while copying them.

HELP!!— If you are feeling overwhelmed take a break and try out ZPIP a little. Remember to exit ZPIP if you are in the interactive mode indicated by the * prompt, do a carriage return, or ;Q .

There are many more features of the ZPIP utility not covered here, however, if you use the *;h to see the help listing you will get an idea of more ZPIP functions. This should get you started into some of the uses of this TPM-II utility.

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Some Real "Basics"

We have had so many requests for help with some of the simple operations involved in using MBASIC and CP/M that we have put together some of the most frequently used commands here. To begin with, it is much easier for the user if MBASIC is on the same disk that you are going to have your basic program on. You can either use your CP/M disk, or use the COPYDISK procedure to create a data disk and place the system tracks and MBASIC on it.

To place a file, or move a file from one CP/M disk to another, use the CP/M utility program called PIP. PIP stands for peripheral interchange program. Each disk drive of your system is a separate peripheral, so if you want to move a program from disk drive A to disk drive B, you must use this program to copy the data from one peripheral to the other. Pip works not only with the disk drives, but from a disk to the printer, and from a disk to the CRT screen. The most common usage is to copy a file from one disk to another. To do this, run the program named PIP at the CP/M prompt on the disk on

which PIP.COM is located. We do this by typing the following (for example) - A]PIP [RET] you will see an * on the next line. At this time, type the destination drive name, followed by a colon, an =, the source drive name, followed by a colon, and the complete filename and extension of the file to be transferred. For example, to move the program called SMURF.BAS TO drive B disk FROM drive A disk we would type the following at the A].

A]PIP [RET]

*B:=A:SMURF.BAS [RET]

(You will note that the destination drive name comes first, followed by the drive where the file is located.)

To get MBASIC to do anything you need to type MBASIC at the A or B prompt. You will then see the copyright information identifying the program as Microsoft Basic program. If you want to enter a program at this time you begin by entering your line numbers followed by program lines. When you have completed the program and want to store it, you will enter the following command SAVE "FILE-

NAME.BAS" - you will need the space after the word save, the quotation marks must also be included.

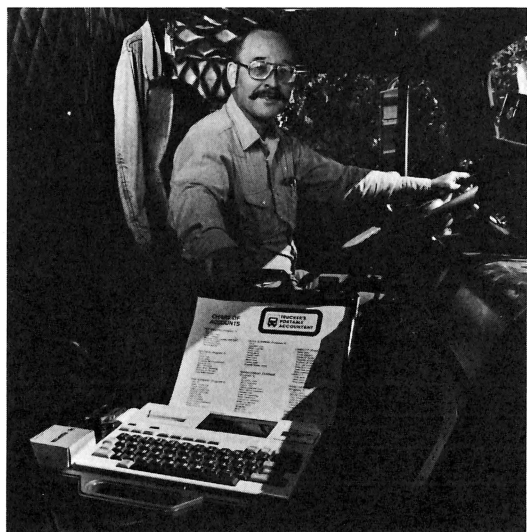
To exit MBASIC and get back to the A] you type SYSTEM followed by a carriage return.

To load and run an MBASIC program all in one step, type A]MBASIC FILENAME [RET] ** Note - the .BAS file extension and the quotation marks are not required in this case.

To have a copy of the program printed out to the printer you will do a control P at the A] followed by the filename and extension and carriage return.

In MBASIC if you want something to print on the printer only the proper syntax is LPRINT. If you want it to print on the CRT screen as well as on the printer you type PRINT followed by quotes and the text you want printed.

This is a very rough sketch of a few very basic commands. You should read your MICROSOFT BASIC for the QX-10 which you received with your computer.



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MILLIONAIRE

The Stock Market Simulation

by Larry Hufty

As a stockbroker with Merrill Lynch, I was somewhat apprehensive about a game designed to simulate the stock market. I was, however, delightfully surprised! "Millionaire" provides you with the thrill and disappointments of the stock market, without the inherent risks of the real market. Whether you are a technician, who enjoys watching the stock charts, a fundamentalist who likes to invest in financially strong companies, or just someone who simply enjoys the stock market for challenge, Millionaire is for you.

The documentation for Millionaire is extremely well written and leaves no question unanswered. All that is needed to start your first game is to put the program on a CP/M system disk. Then just type M and you're on your way to becoming a Millionaire. You will be asked if this is a new game for you. If so, Millionaire will take about four minutes and generate a complicated 91 week stock market scenario. This scenario will include charts for 15 different stocks, such as IBM, K-Mart, General Motors, etc. The 15 stocks are divided

into five different industrial groups—computer, oil and gas, retail, auto, and heavy industry. In addition to the charts for the 15 different companies, a chart is generated for each industry and of course, the Industrial Average. That's 21 charts total, and they are updated each week.

You begin play on week 15, which allows you to see the previous market action. Each week, you'll get a Financial News report. One week it may announce that the auto industry is suffering poor sales. And presto! the auto stocks start their downward movement.

At the beginning of play, you are given \$10,000. It is up to you to make something of yourself. With your ten thousand dollars you are limited to the buying and selling of stocks. However, if you obtain a net worth of \$12,000 you can buy on margin. That means you can borrow up to 50% of the price of the stock. Beware as you buy and sell that the commissions of 1.5% or the 30% tax rate doesn't eat up your profits! Obtain a net worth of \$18,000 and you can buy and sell call options. This is one area in which Millionaire is lacking. You cannot sell a covered option on stock that you own. A small point, but worth mentioning. Make it to the wondrous level of \$40,000 and the world of

put buying and selling is opened up to you. Should you reach \$100,000, loans up to 80% of your net worth can be obtained. (You will be charged interest of course!). The chances of reaching the magic of One Million Dollars in the 91 week period are the same as in the real world—remote.

At the end of week 91, Millionaire will sell out your entire holdings and place the money in your name. In the future all you have to do is call up the program and type NEW. It will show the net worth status of up to 14 people, including yourself, from the end of week 91. If you want to start with the money you previously accumulated, enter your player number. If you want to start fresh, hit return, and you're back to the beginning, with Millionaire setting up a new 91 week period.

For the novice or seasoned market player, I highly recommend this game. I have only touched on its many virtues. Remember, this is not a fast moving video game. It is one that takes time and a lot of thought. Above all, it's fun!

For more information on "Millionaire" contact Blue Chip Software, 19818 Ventura Blvd., No. 204, Woodland Hills, CA 91364.

QX

NEMESIS

by Ron Spatafora

Ogres, hirebrands, monsters, spells, levels Just another D&D (dungeon and dragon) game? Definitely not Nemesis! This one keeps you moving so fast it certainly doesn't fit into the "run-of-the-mill" category. The game's detail, concept and execution can be attributed to two elements: Michael A. Pagels (author-SuperSoft) and the Nemesis Users Group which keeps the author on his toes with user suggestions.

The instructions are good, and detail everything you'll need to know to install the game into your machine and create the characters who must explore the depths of the castle.

The author is most explicit about the purpose of the game and he is very

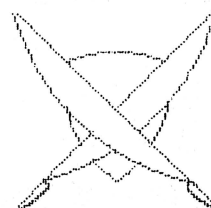
keen on pointing out that the levels of the game are not the levels of the different dungeons, but rather the level of growth of the character. Indeed, the parameters that you establish when creating the character, relate to the philosophy of the creature's development, that is it starts out at age 16, has no armament and has no idea of what will happen. As time passes, the creature (you) gains experience, wisdom, power, weaponry, gold and you'll "grow" older. Age does have an affect on your abilities.

I make no reference as to hints or strategy, they are well covered in the manual. There is one thing that I'll pass on to you, and the author makes the same suggestion, read the manual, cover to cover, first! The game has a lot of elements and features. Your ability

to stay alive is based upon two things: knowledge (expertise) and manual dexterity.

The author offers help to anyone who has trouble installing the game or perhaps a problem living past the first 100 seconds! Did I mention the game is 100% real time? The monsters wait for no one. . . good luck!

For more information on Nemesis, contact SuperSoft, P.O. Box 1628, Champaign, IL 61820.



QX

CITATION

BY Ralph Ruh

System requirements: CP/M version 1.4 or later; 48K RAM; Z80 CPU; dual-floppy or hard disk drive; 80 column printer; 80 x 24 cursor addressable CRT.

The Citation software package is a non-configurable application data base program. Data base management systems (DBMS) come in many forms, price ranges, and levels of difficulty. Since I have a strong interest in data base management systems I have explored many of the DBMS systems that are presently available on the market. In my business I need the ability to manage a large base of information and have the ability to sort that information in many ways. There are a number of very powerful DBMS programs available on the market today. Most of which require the end user to learn a programming language in order to fully utilize the product. Most of these programs are quite expensive and difficult to learn to use. Many or most QX-10 owners do not have the time nor the interest in learning a special language to be able to obtain the ability to store and sort information for their applications. After all, that was probably one of the main reasons for the choice of the QX-10 computer in the first place. Since the QX-10 is so user friendly and does not require one to master an operating system in order to gain full use of the computer.

With DBMS systems like 'DBASE II', 'CONDOR', etc., the user has great flexibility in the design of his data base. The user can define his field names, set up special forms for printing and do mathematical operations on the data base. Like so many things in life to gain one thing it seems you must give up something else. 'Citation' is a DBMS system which is ideally suited for the user that wants to sit down and be able to manage information that is particularly suited for its design. Citation is an excellent utility for keeping track of articles, books, and advertisements. It is a pre-packaged database application, with field names pre-defined to fit these

particular needs. Citation is designed for anyone who needs to catalog information derived from many different sources.

The three types of pre-defined databases offered by Citation are:

- Periodical Citation
- Publications
- Name and Address

CITATION FEATURES

Citation is completely menu driven and can be used with very little reference to the manual. The program provides full-screen editing for entering the information. It lets you create and maintain any number of independent files as well as maintaining separate files for various fields of interest. All menus are clear and concise, and all have very good error handling and error messages. There is very little that you can do wrong, and the escape key is used as a consistent way of getting out of the program at almost all levels.

The record retrieval and update menus are also very simple. You can print or view records based on a ten-key search. Citation even sorts the records it finds, and shows you the ones with the most matches first. As an example, if you are looking for an article on the QX-10, and can't remember if you gave "QX-10" as a keyword, search for both "QX-10" and "computer". If you did use the keyword, that record comes up first, if not, it is still in the selected group.

When you add, change, delete or view items in the Citation master file, you can access the desired item(s) by keyword or by the name and date of the information source. The report formats are easy to understand and are formatted for 8½ x 11 inch paper. Citation prints the keywords you requested in the heading of the keyword search report. You can provide a report title for each master file, which is then printed at the top of each report for that file.

Like most pre-defined application DBMS programs, Citation uses cursor addressing for all its functions. The program checks each character you type, and gives you many advanced editing features. Such as automatic word wrap when entering information in the the comments field. The terminal installation program is very easy to use, and should be configured for the TVI (ALL) terminal choice for the Epson QX-10.

The program is designed to run under CP/M. However, I have been using it quite successfully under the TPM operating system outside of Valdocs. As far as speed of execution is concerned, this is a debatable subject. It certainly is much faster in execution than other more powerful DBMS systems which I also use. I find Citation to be a very fast and dependable application data base program, which is well suited to the particular applications for which it is designed.

DOCUMENTATION

The manual that comes with Citation is very good. All functions of Citation's capabilities and requirements are clearly described to the user. The 'Getting Started' section explains how to install Citation and create the needed parameter-definition and CRT-definition files in a clear and straightforward manner. The manual also provides a sample master file with sample reports generated from it. I feel that a good program deserves a clear and helpful manual, in less than 500 pages, which Eagle Enterprises has certainly provided.

CONCLUSIONS

As you can tell, I find the 'Citation' program to be an excellent pre-defined application database in most all categories. The only small problem I find is the use of a two character file ID. This is a small inconvenience. But is needed by the program for storage purposes on the disk. It would be more convenient to have an additional menu selection so that the user can view a list of 'Citation' files on a disk, and then choose from the list for execution of the particular file.

The only other thing I would want to caution a potential buyer about is to be sure that you have a need for the capabilities provided by Citation before you purchase. Remember, this program offers three pre-defined data base formats. (1) Journal/Magazine (2) Publication (3) Person/Company Name and Address. If you are like me, and have a need to maintain information from many sources and need to sort and print reports on that information, then I highly recommend this program to you.

For more information contact Eagle Enterprises, 2375 Bush Street, San Francisco, CA 94115.

More Reviews for the HX

SMARTERM

by Bob Herman

HX-20 Software: SmarTerm (version 2.0) by Epson Great Lakes, 13500 Reeck Rd., Southgate, MI 48195.

Hardware required: HX-20 (16K or 32K) with microcassette drive, CX-20 modem and cable

Hardware used for evaluation: HX-20 with microcassette, and expansion unit, CX-20 modem and cable

SmarTerm is a sophisticated, efficient machine language program which enables the HX-20 and CX-20 modem to become a portable communications station. Included with the microcassette is a 23 page instruction book.

When evaluating communications software several basic aspects need to be considered; (1) buffer size; (2) upload/download capability; (3) printer support; (4) ease of setting up and changing communications protocols. Other capabilities which enhance the usefulness of communications software include: (1) buffer status report; (2) auto losing capability; (3) ability to edit buffer.

To use SmarTerm it is necessary first to load the program from tape and then to "install" it by means of the "EXEC" statement into either low or high memory (high memory affording more protection from erasure by other programs). With SkiWriter and SmarTerm installed in an HX-20 with expansion unit, you are left with about 20K of RAM memory (note that installation of SkiWriter in an expanded unit reduces RAM from 32K to 24K). If SmarTerm is erased by another program it is not necessary to reinstall, only to reload. Reinitialization of the system will necessitate both reloading and reinstalling (about a 3 minute procedure).

Once loaded and installed SmarTerm will appear on the main menu. Selection of it causes the program credits to appear. Depression of the "return" key will then put you in the terminal mode. With an empty buffer the screen will clear and the cursor will locate in the upper left-hand corner of the screen; with text in the buffer the cursor will locate at the last character.

All functions are then executed by holding down the "GRPH" key and then depressing the appropriate command key. The first function required is the "alter screen" option, which allows for definition of buffer size (the

capacity of the LED screen is the default size of the buffer). Execution of this function causes the appearance of prompts allowing the buffer to be defined by line length and number of lines (both have a maximum of 255 and their product can not exceed the amount of available memory).

The CX-20 is a 300 baud modem; however the character display rate of the LED screen on the HX is less than the 30 character/sec rate of the modem. This is fortunate, because at 300 baud everything would scroll off the small screen before you could read it. As it is, absolute attention is required in order to not miss any of the text. It is possible to retard the speed of transmission even more by defining a line length greater than 20, thus forcing the slower horizontal scrolling and allowing for easier viewing of the text.

The full 300 baud transmission rate may be utilized by electing the "without display" option. However, there is no updating to inform you when the transmission is completed. You have to guess when to go back to the normal

terminal mode. Once returned to the terminal mode, it is not possible to go back to the "without display" mode until a break in transmission is reached.

One other shortcoming of the program is that there is no indication of buffer status. When the buffer becomes full it empties itself with no acknowledgement whatsoever to the user.

Communications parameters are easily set and modified with SmarTerm. Also, you may use the "view/edit" mode to either inspect the contents of the buffer, add to it, or create your own text which is then effortlessly transferable to any other RS-232 device. The contents of the buffer will, of course remain intact if you turn the computer off (providing other programs are not run). You may also elect to record the contents of the buffer on tape or print them out on the microprinter.

Other features of the program include an initiation buffer set up, thus allowing for an almost automatic logon capacity. Hardware and software "handshaking" capabilities are also included to insure accuracy of transmission. Furthermore, files may be transmitted by use of the Christianson Protocol, which has error checking and correcting capabilities. Provisions are included for a 1200 baud transmission rate.

The documentation also contains instructions on altering the buffer location in the memory of the HX-20, allowing Basic ASCII, SkiWriter, and SmarTerm files to coincide. These instructions do require at least a fundamental knowledge of machine language in order to comprehend. Additionally it is possible to load SkiWriter files saved on microcassette directly into the SmarTerm buffer, and thus make them readily transferrable in this manner too.

The documentation accompanying the program is excellent. Although a couple of spots are just a little vague, explanations are thorough and easily understood, making use of the program a snap. A quick reference chart of the command functions is provided, but the assignment of these functions is so logical that you won't need the chart for very long. The only criteria of those mentioned at the beginning of this discussion that is not among the features of SmarTerm is some type of buffer status indicator. The author's claim that "the program is easy to use and provides extensive operational capabilities" is certainly well founded.

KEEPER

by Bob Herman

Hardware required: HX-20 and external cassette

Hardware used for evaluation: HX-20 with microcassette, expansion memory, and external cassette

If you need a handy little schedule of appointments, "Keeper" may be the answer. It allows you to print out on the microprinter a calendar of any month in this century, followed by a list of engagements.

The program first asks you to specify whatever year and month you desire. It then generates a calendar printout on the microprinter. You are then allowed to enter whatever appointments you need to remember, with their respective dates and times, and even a note of 30 characters or less. A printout of appointments is then generated.

There is one drawback. If it is necessary to update your schedule, you will need to reenter the appointments already listed, plus whatever changes there are.

For more information on "Keeper" contact Software Riches, Riverview Terrace, Irvington, NY 10053.

WE'VE MADE BAR CODE AFFORDABLE.



Our complete bar coding system is more affordable than many systems with less computer power. It gives you unmatched accuracy and reliability to make inventory control and other data collection easier and faster than you ever dreamed possible, regardless of what kind of business you're in. This new system works perfectly in retail stores, warehouses, hospitals, libraries, publishing firms, military installations, shipping and handling departments, manufacturing plants, and even blood banks. If you need to keep up with materials, information, or people, it'll work perfectly in your business, too.

COMPLETE SYSTEM.

Everything you need is in one easy-to-use system.

A portable Epson HX-20 Notebook Computer (it weighs less than 5 pounds and fits into a briefcase yet it has a full-size keyboard, a built-in screen, microcassette tape drive, continuous memory, and RS-232 interface capability with a host computer)

Our exclusive software that can be easily adapted to your particular needs

High-quality bar code symbols printed by an Epson FX-80 printer that's driven by the HX-20.

The IS Wand with its amazing scanning accuracy

With our system, you won't have to shop around for software to fit your hardware or vice versa. The IS package has everything you need for the most reliable and accurate portable data collection system available today.

EASY TO USE.

After the BASIC programmer has designed the application to meet your specific needs, it takes only minutes to learn how to become a proficient scanner. Just plug the IS Wand into your Epson HX-20 Notebook Computer and pass the wand over the bar code. The wand instantly reads and records the information stored on the code to eliminate the tedious job of recording the information by hand. Plus, you get up-to-the-minute data any time you need it to help you make better decisions faster.

COMPLETELY PORTABLE.

Our system is so light and compact it's easy to take anywhere—the warehouse, a branch office, your other store, or even out of town. Your HX-20 computer is powerful enough to run on its internal power supply for over 50 hours and recharge in less than eight. Plus, you can use it all day, shut the unit off, and the computer will "remember" every bit of information you fed into it.

FAST AND ACCURATE.

Keyboard entry results in a human error every few hundred keystrokes, even with the most efficient operator. Bar code entry reduces mistakes to one error for every few million scans!

Our system reads high to low density bar code from 3 to 30 inches per second with a first-time read rate that exceeds 90%.

OUR SOFTWARE.

- The IS bar code utilities are provided on microcassette
- All utilities are written in machine language and BASIC demonstration programs are included
- Two packages are available:
 - SuperPac I** - Read and Print Code 39, Interleaved 2 of 5, & Codabar; OCR-a; and KBX
 - SuperPac II** - Read and Print UPC & Plessey; OCR-b; and KBX
- All readers are autodiscriminating
- Each package provides the ability to print the respective symbologies on most Epson printers with variable height and contrast
- OCR may be chosen as an eye readable font where required, such as LOGMARS or UPC labeling
- KBX Keyboard Control Routines provide the programmer with keyboard and display control for developing user friendly applications software



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Logo Professor features turtle graphics, a highly interactive "turtle" character that guides users through the learning process with simple to understand English commands providing immediate response. By pressing the style key, you can choose a selection of three screen displays including text, text and graphics, or all graphics. And, it's easy to use. Auto-boot TPM™ and HASCI™ enabled keys make program use as easy as placing the diskette into the drive. To perform various tasks, just press the appropriate key such as HELP, STOP, RETRIEVE or STORE.

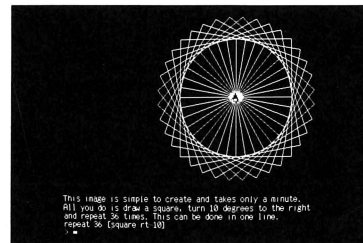
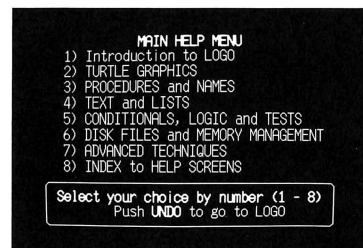
Logo Professor also contains 60 pages of helpful documentation on disk. This feature enables users to receive help anytime during use of the program without having to refer to lengthy manuals. With Logo Professor, the user learns by doing.

Acorn Publishing offers a complete line of educational and entertainment packages for the Epson QX-10 including Logo Professor, Reading Professor, Typing Professor, Math Professor, Underground City, Bumper Cars, Convoy Attack, Laser Tanks, Falcon Adventure, Star Destroyer and "21" Mentor.

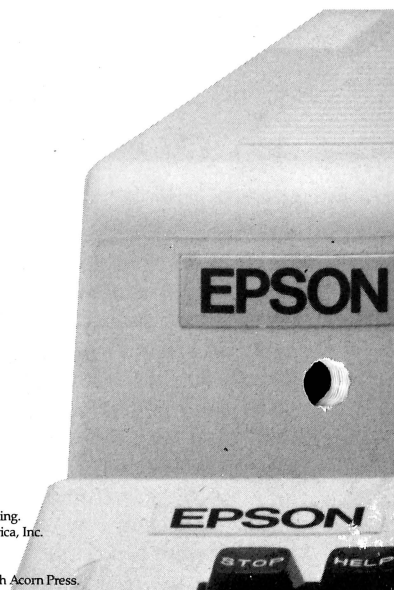
There's more
to do with

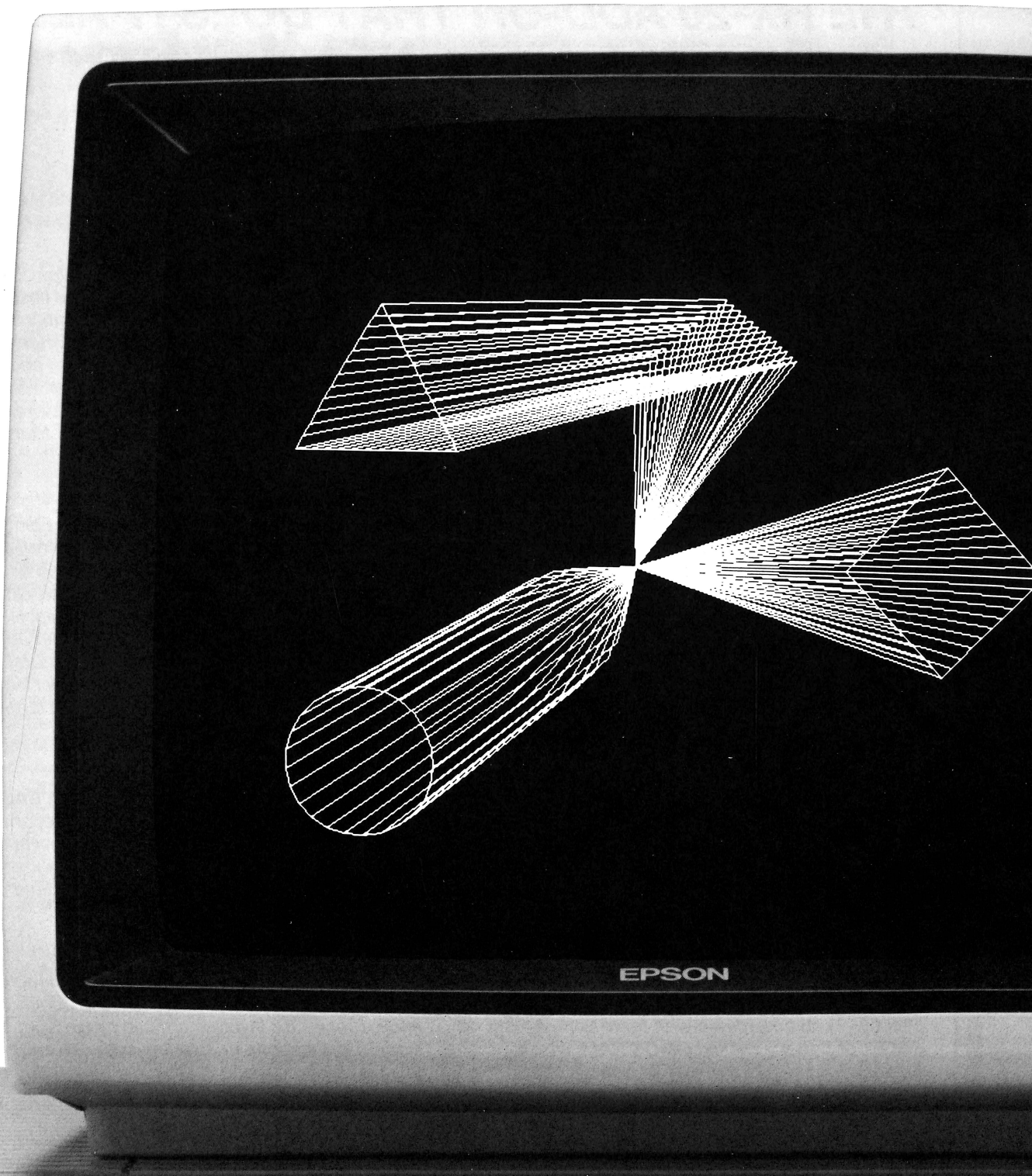


For more information and dealer nearest you write:
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THE HX-20 ADD-ON THAT DOES IT ALL!

The ST-2 Interface is a multi-purpose expansion module which is plug compatible with the Epson HX-20 Portable Computer.

- **Complete analog and digital interface**
- **Expands HX-20 Memory to 112K**
- **Direct-connect auto-answer/dial modem**
- **Magnetic Stripe Card Reader Interface**
- **Battery operation**

No HX-20 Modifications

The ST-2 Interface is a powerful HX-20 peripheral which plugs into the Epson HX-20 expansion connector. It can be installed in the field in a few minutes. No more warranty worries! Easy to service.

Price/Performance Breakthrough

Now you can do things with your HX-20 that would have been out of the question because of high hardware costs. The perfect way to get your application off the ground, without resorting to custom-made interfaces.

Analog/Digital Section

Its 32 analog inputs accept 0 to +5 V signals. These can be read at high speed (up to 20,000 conversions/sec) with 8-bit resolution or at lower speeds with 12-bit resolution. These inputs are compatible with Stable Technology's GT-Series preamplifiers, which accept low-level inputs from thermocouples and other sensors.

There are 32 relay or logic outputs. The former are open-collector drivers capable of sinking up to 300 mA at 50 Volts. Logic outputs drive CMOS or TTL loads.

Two 8-bit high-speed counters can be used separately, or cascaded to make a hardware-based event counter which can also be used to measure RPM. One or both counters can be replaced with parallel CMOS logic inputs.

The ST-2 also has four analog outputs for process control and chart recorder applications.

Memory Expansion Section

The ST-2 can be ordered with up to 64K of extra PROM or battery-backed CMOS RAM, which extends the HX-20's memory to a total of 112K. The memory can be used to store programs and/or data. It supports the multi-tasking extensions to HX-FORTH, a programming language which allows the HX-20 to handle very large, complex applications efficiently. The ST-2 can be ordered without any analog/digital interfaces when only the extra memory is needed.



Data Communications MODEM

The 300-baud modem is FCC-approved for direct connection to dial-up or leased telephone lines, which results in more reliable communications than acoustic coupling can provide. It is a programmable "smart" modem which lets the HX-20 send and receive data calls from a remote computer in an unattended mode. This can pay for itself in store/forward applications by letting the HX-20 transfer data at night.

Magnetic Stripe and Bar Code

Stable Technology is very experienced in point-of-sale applications. The ST-2 contains an interface which is designed to support our motorized or "swipe" readers for ABA Track 1 or 2 credit cards. An extended version of HX-FORTH is available to support both magnetic and bar code reader applications. We also have a point-of-sale structural foam housing for the HX-20, with additional features including a 36-button keyboard, and larger display.

Programming The Interface

The ST-2 Interface can be programmed in BASIC, HX-FORTH, or Assembly Language. We recommend HX-FORTH for most applications, because of its speed and compactness. Multi-tasking extensions to HX-FORTH are available for real-time applications.

Application Support Available

Stable Technology encourages its customers to draw upon our extensive experience in computer applications. Our involvement can range from occasional consultations to turn-key software and hardware development and custom manufacturing.

Packaging

The ST-2 is available in two standard versions. One mounts under the HX-20 and is battery powered. The other is an industrial-quality waterproof housing which also holds the HX-20 and a complete line of monitoring and control system accessories.

Available from:
G.W. Smith Associates
62 N. Chapel Street
Newark, DE 19711
(302) 738-7308

Dealer inquiries invited.



STABLE TECHNOLOGY, INC.

Helpful Hints

MAKING PERMANENT CHANGES OF SMARTERM'S BAUD RATES

SmarTerm comes with two baud rate options— 300 and 1200 baud. However, if you want to output the buffer contents to an external printer which is set up for the default communications protocols of the HX itself, then it is necessary to make adjustments to the printer or to the program. With many printers, this involves removing the cover and making the appropriate dip switch changes. A more convenient option is to make a recording of SmarTerm with the fast baud rate set to 4800 baud. To accomplish this use the following procedure:

- 1) Reinitialize the HX
- 2) Set the MEMSET to 6100
- 3) Wind the program tape to the appropriate location and "LOADM"
- 4) Go to the main menu of the HX by hitting the "MENU" key
- 5) Select the Monitor (1)
- 6) Type S0D19 and hit RETURN. The number 64 should appear.
- 7) Type in "96" and hit RETURN
- 8) Type in a "." and hit RETURN
- 9) Type in S0D1B and hit RETURN, The number 79 should appear
- 10) Type in "111" and hit RETURN
- 11) Type in a "." and hit RETURN, and then a "B" and hit RETURN
- 12) Make a recording of the program changes just made by typing SAVEM"SmarTerm.II",&HA40,&H17D 0,&HAE0" and hitting RETURN.

Whenever this version of SmarTerm is used, the high baud rate selection (GRPH F) will be set at 4800 baud. To output the buffer contents to an external printer which is set at the default protocols of the HX, set the communications parameters to 2 stop bits, no parity, and an 8-bit word. To initiate hardware handshaking (GRPH H), select the fast baud rate (GRPH F), and then begin the transmission (GRPH T).

COMMUNICATION PROTOCOLS FOR EPSONLINK AND SMARTERM

When accessing CompuServe using the SmarTerm program by Doug Porath or EpsonLink, the protocols need to be changed from the default settings. With SmarTerm it is necessary to initiate the x-on/x-off (GRPH X), use even parity (GRPH 2), and a seven bit word (GRPH 7). With EpsonLink you must also have even parity and a seven bit word, also, set the stop bits to 1.

Keep in mind that when using EpsonLink you can hold down the control key and hit the PF2 key to obtain a printout on the microprinter of whatever is on the screen. Do this as you set the appropriate parameters for each different service you are accessing, and you'll have a handy record that may save future frustration.

HX-20 HELPFUL HINTS

If you have reason to remove the microcassette cartridge, do not run your finger across the side connector to the computer. The connector exposes the power connections to the computer, and damage could be done to the unit if you ground across the connectors with your finger.

Inserting paper into the HX is easier if you cut a point on the end of the paper that is inserted. It will feed in easily, and makes pulling it through a quick process. Caution *** Pulling the paper out of the printer BACKWARDS may damage the printer gears, and is a costly mistake to make.

Charging your unit should be done as outling, overcharging the batteries may shorten their life.

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TAX/PACK

ACCOUNTANT & PRACTITIONER PROGRAM

Runs on Epson, Xerox, Northstar, Apple II, Radio Shack, IBM PC and PC Compatibles. Available in CP/M, MSDOS and TRSDOS. This system has been used to process thousands of returns.

- **MORE FORMS & SCHEDULES**
Tax/Pack processes all schedules, and Forms 1040, 2106, 2119, 2210, 2441, 3468, 3903, 4562, 4797, 5695, 6251, 6252 and 1040X. The system also includes attachment, depreciation and mortgage loan schedules. Flexible individual or batch print modes.
- **INSURES SPEED & ACCURACY**
Enter data only once. The data is passed to appropriate forms and schedules automatically for speedy processing and changes. Do up to 5 Schedule Cs, Ds, Es, Fs, etc. per client.

- **FULL SUPPORT & UPDATE**
Delivery by January 10. Receive a free update disk in February. Phone modem support. Annual update fee only \$125. Available source code version lets user customize programs and output.
- **RECEIVE A FREE '83 TAX/PACK**
Order the 1984 version before Nov. 15 and receive a free '83 version for employee training. Demo disk only \$29.95. Personal Tax/Pack \$79.95. Client proforma and tax planner also available.

ALPINE DATA

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NEXT MONTH

The EpsonConnection will have a new look with the arrival of our first regular monthly issue in July. There will be an entirely new graphics design, as well as color. Subscription rates for one year will be \$24.00 in the U.S. and \$30.00 (U.S. funds) in Canada. Overseas subscription rates will be determined by the "mail class" requested: first class airmail add \$36.00, surface mail add \$10.00 (plan on 3-6 months for delivery).

Back issues are available for \$3.00, or, the entire set of the first 5 issues, July/August 1983 through March/April 1984 is available for \$12.00.

Features Coming July:

- * Highlights of the Atlanta Comdex Show
 - * Review of Graphics programs for the QX
 - * Medical On-Line DataBases
 - * Users Groups Part 3 - How to meet the needs in a large group
 - * Speeding Up Valdocs
 - * Hasciized Software Reviewed
 - * Acorn-Logo and Reading Professor reviewed
 - * HX News and Reviews
 - Epson Connection Disk -2
- and much more.....

Public Domain Programs Announcement

We are in the process of compiling descriptive information on each of the public domain programs on the EpsonNet RBBS/RTPM systems. Request for individual programs from our systems are too time-consuming to be able to provide. We are offering disk sets of the software which will be listed in each issue of the Epson Connection.

"PHONE DIRECTORY"**FOR THE EPSON HX-20**

THE ULTIMATE HX-20 PHONE LIST PROGRAM. MANAGES A NAME AND TELEPHONE NUMBER DIRECTORY OF UP TO 255 ENTRIES. MENU DRIVEN WITH POWER OFF SAFE DATA STORAGE IN RAM. QUICK RECALL BY NAME, NUMBER OR ANY ELEMENT THEREOF. ADD, CHANGE, ERASE AND PRINTOUT ENTRIES WITH EASE. ALSO SAVES AND LOADS DATA TO AND FROM MICROCASSETTE. MANY OTHER INTERESTING FEATURES. COMPLETE WITH DOCUMENTATION. \$25 ON STD. CASSETTE, \$28 ON MICROCASSETTE. SEND CHECK OR MONEY ORDER TO:

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901 S. COIT RD. SUITE
104
RICHARDSON, TX 75080
(214)699-8506

HX-20 PRODUCTS

MEDICAL PATIENT DATA PROGRAM

Software allowing direct entry of medical patient data into the HX-20 has been developed by Ash Medical Systems, Inc. Through the use of a "Computerized Notation System", the clinician may enter notes into the HX-20 in the examination room for development of the portable medical data base; allowing for transfer of data between medical institutions. Contact Ash Medical Systems Inc., 2701 B Kent Ave., West Lafayette, IN 47906.

TRUCKERS PORTABLE ACCOUNT SYSTEM

This is designed specifically for independent trucker/owner operators. This accounting system keeps track of all over-the-road expenses, settlements, loans, assets and depreciation. It gives profit and loss statements in costs and revenue per mile. The program is menu prompted and trucker friendly. Suggested retail price \$995 including the HX-20, and \$395 purchased independently. Dealer inquiries are invited. For more information contact Motherboard Companies, Inc., 110 N. College Ave., Suite 4, Ft. Collins, CO 80524.

PROGRAMS FOR THE HX-20

Susie Software has released four programs for the HX-20:

- Micro-Sales - a point of sales form generation program. (\$25)
- Micro-Files - a data management program. (\$25)
- Micro-Label - list and label program. (\$25)
- Micro-Flight - a flight simulation program. (\$28)

For more information contact Susie Software, 709 Wilshire Drive, Mt. Prospect, IL 60056.

HX-20 PROGRAM UPDATE

Brian Lomasky has updated two of his programs, HXCALC and DBAS. The new version of HXCALC allows the user to define the dimensions of the spreadsheet according to the amount of available memory, with over 1000 cells allowed. It also performs calculations faster than the original version. The new database program has all the options you could desire, allowing for individual column formatting (with up to 16 columns), entries of up to 255 characters, individual column sorting, 8 different report formats, and memory for over 15,000 database characters. HXCALC will sell for \$50, and DBAS No. 2 for \$75. Contact Brian Lomasky, 984 Hanover Road, Meriden, CT 06450.

"EPSON HX-20 TECHNICAL REFERENCE MANUAL", 1984, Epson America Inc.

This is a very complete technical manual necessary to implement system software development for the HX-20. This gigantic book will barely fit into a briefcase. It contains detailed descriptions of every component of the HX, and a listing of every subroutine. Included are sample assembly language programs and the Hitachi user's manual for the HD6301VO chip.

CARRYING CASE FOR THE HX-20

Shown at the Comdex show was a nice soft-line of carrying cases. The cases are made of nylon cordura, and backed with urethane making them water repellent. The lining and outer shell has polyurethane foam for shock absorbancy. The hand strap is nylon webbing with leather hand-pad. The cases come with a 24 month guarantee on material and workmanship. List price is \$65. For more information contact The Madison Line, 255 Fourth Street, Oakland, CA 94607.

NEW PRODUCTS QX-10

NEW GAMES

Acorn Publishing has introduced two new action graphic games for the QX-10. Falcon Adventure involves feeding and caring for your baby falcons before they die of starvation. Star Destroyer is an asteroids type action game. Another new entry is Reading Professor. Contact your local dealer. For further information contact Acorn Publishing, 1335 West 134th St., Gardena, CA 90247.

BUSINESS AND GAMES

Generic Software has two CP/M game packages. Game-Pac-1 includes Guns of the Alps and Number Rotation. Number Rotation is a memory game requiring you find the numbers under blank squares and turn them up in proper sequence. The second game package, Football, is a simulation game. Business packages include: Depreciation Master; a Mutual Funds stockmaster program called Funmaster; and some utilities.

For further information contact Generic Software, P.O. Box 790, Marquette, MI 49855.

DOS PLUS FOR THE QX-10

MicroSystems has been developing the Dos Plus IV. This is the operating system used by the Radio Shack Model 4 computers. Software which directly accesses the Model 4 hardware will not function on the QX-10. Any software that uses only the DOS supervisor calls will be transportable between the two machines with the possible exception of some of the graphics characters. Contact Micro-Systems, 4301-18 Oak Circle, Boca Raton, FL 33431.

CARRYING CASES FOR THE QX-10

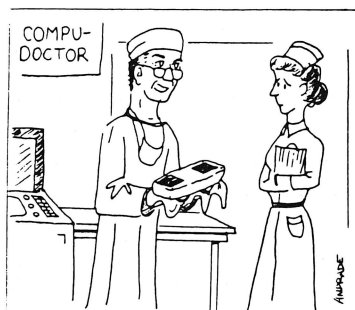
Heavy duty travel cases for the QX-10 in flight form and C-series are available. The C-series is for easy handling, a light traveling case to carry the full QX-10. Cases are also available for your printers. For more information contact Cases Inc., 13102 Stone Ave. North, P.O. Box 33820, Seattle, WA 98133.

HASCIIZED PROGRAMS WITH CP/M-80-B RELEASE

There are 7 new releases of CP/M software through Epson America which have been user "Friendlyized" to work with the QX-10 HASCI keyboards. These work with the new CP/M-80 B Release system. The programs are: WordStar, MailMerge, SpellStar, dBase II, Friday!, MicroPlan, and GraphPlan. A few of the differences noted with WordStar are mentioned here. The special function keys perform many of the most often used functions in wordstar. Store, retrieve, index, all perform tasks which previously took several keystrokes to accomplish. Another feature is the use of the typestyle keys which allow the Epson printer owner to change the typstyles as indicated on the key. Several function keys are left available for the user to program, using the special features of CP/M B, which allows customization of the keyboard.

SPECIALIZED PROGRAMS

A variety of specialized programs are available: Retail Inventory and Billing systems; Bio-Rhythm generator; Real Estate Appraiser Systems; Tax/Pack income tax program. For more information contact Alpine Data Services Corp., 635 Main St., Nassay Bldg., Montrose, CO 81401.



"Well, it's not terribly serious. My recommendation is to keep it covered and on its stomach."

CX-20 ACOUSTIC COUPLER

TECHNICAL NOTE: This cartoon is actually no joke! The coupler works better if you put a handkerchief over it, then insert the phone into the cups and turn it upside down.

KEY ADVANTAGE

Key Advantage programs are for Peachtree's PeachCalc and the QX-10 MicroPro's Wordstar. Each program comes with an overlay for the HASCI keyboard. The Key Advantage programs redefine the functions of certain keys on the QX-10 HASCI keyboard to enhance the two programs for more user friendly keyboard interaction. There are three programs with each software package: REKEY, NORMKEY, and COLD.SUB. These programs are compatible with QX-10 CP/M Versions 2.20, 2.21 and 2.21H.

For more information contact Joe De Rosa, Epson East, Inc., 200 Benton St., Stratford, CT 06497.

FARM MANAGEMENT SERIES—QX-10

Countryside Data Inc. has produced a complete series for use on farms and ranches. Ag-Finance: a basic financial and production record system with check writing, budgeting, and report capability. Ag-Planner: an integrated production and analysis planning tool. Ag-Payroll: handles payroll, FICA, income tax, insurance, and other deductions. Ag-Marketer: a specialized system to record market data and predict profit for various crop/product sale dates. These four programs work together. Two other specialized programs are available. Dairy Herd Management: tracking production, health and genetic records of livestock operations. Cow/Calf Program: for cow/calf data management.

For more information contact Countryside Data, Inc., 718 N. Skyline Drive, Suite 201, Idaho Falls, ID 83402.

ANVIL TRAVEL CASES - QX-10

Anvil recently displayed some traveling cases which will hold the entire QX-10 and 80 column printer. These are heavy-duty and come with wheels to make it easier to move around. The suggested retail price is \$475. For more information contact Anvil Cases, Inc., Computer Products Division, 4128 Temple City Blvd., Rosemeade, CA 91770.

Book Review

"THE MBASIC HANDBOOK" by

Walter A. Ettlin and Gregory Solberg. Copyright 1983 by McGraw-Hill, published by Osborne/McGraw-Hill, 2600 Tenth Street, Berkeley, California, 94710. The book sells for \$17.95 and is available in local book and/or computer stores.

The "MICROSOFT BASIC" manual you received with your EPSON QX-10 is a useful reference manual, but that is all it is. Whether you are a beginning or an experienced programmer, you will gain much by including this book in your resource library. It points out much more of the true power for computing available to you in the QX-10 version of BASIC - MBASIC.

The book is basically divided into three sections describing basic, advanced, and power tools available to the programmer. These are distributed over twenty-two chapters and four appendices. There is also a section that provides answers to the chapter exercises.

Chapters 1-10 not only explain the basic commands of BASIC, but you are also introduced to the house-keeping chores of MBASIC, such as saving, load-

ing and "looking" at a file on a disk. You are gently guided through MBASIC by the introduction to a command and then the demonstration of how to implement that command on the computer. A "tutorial" section in each chapter develops a program which utilizes most of the commands introduced in the chapter. This program is continually up-graded at the end of each chapter, thus by the time you complete the book, you have a very powerful program. In this instance it is a payroll program. The editing section is excellent as this is one of the most useful and powerful aspects of MICROSOFT BASIC. The book even includes editing the line number in a program line. The WHILE/WEND loop is very adequately explained and demonstrated. INPUT; and INPUT\$, new to me, are introduced, explained and examples given.

I did feel that the explanation of variables was rather limited, however this shortcoming is overcome by examples throughout the book.

Chapters 11-17 provide the programming commands, functions and

techniques which separate the amateur from the serious programmer. A complete chapter is devoted to program debugging.

Chapters 18-22 are of special interest to the professional programmer as they present some commercial programming aids such as a cross-reference generator, a program to index files, and a compression program.

The appendices consist of a review of commands, statements, and functions, and explanation of error codes and messages, the ASCII codes and finally the answers to the chapter exercises.

I have used a version of MICROSOFT BASIC which was not as powerful as MBASIC, thus I found the book extremely useful; its pages are already dog-eared. I highly recommend it to all QX-10 users, especially if you wish to write or modify BASIC programs for your system. You may even find a number of the programs which are developed in the book useful, a bargain in itself. Submitted by: Robert Bess, Warren, Michigan.

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For what purpose did you acquire your Epson? Personal _____ Business _____

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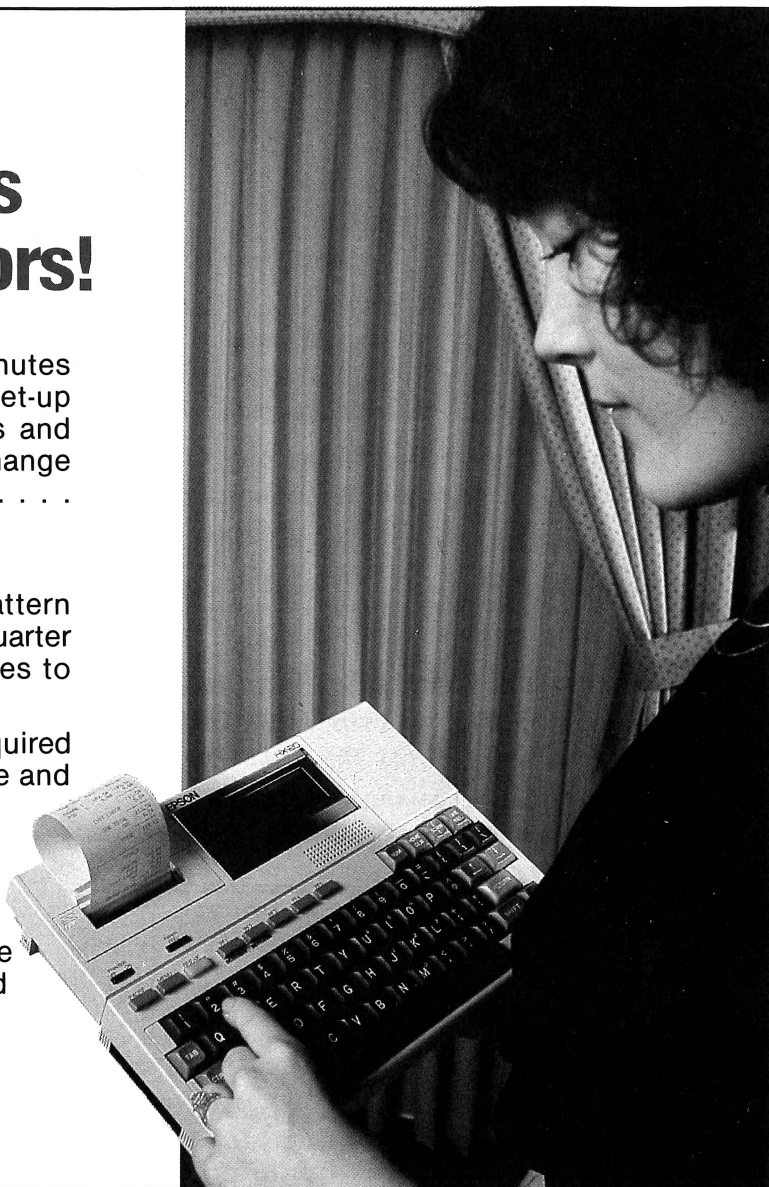
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EpsonNet Network

ADDITIONS & CORRECTIONS

Additions:

Harrisburg RBBS/RTPM Harrisburg, PA 24 hours per day 7 days	Rick Pickles (717) 233-4074 300/1200 Baud
---	---

Irvington RBBS/RTPM Irvington, New York 24 hours per day 7 days Special interest HX-20	Jason R. Rich (914) 693-0293 300 Baud
---	---

Indianapolis RBBS/RTPM Indianapolis, Indiana Mon., Wed., Fri. - 9PM-5AM Sunday - 7AM-2PM	Steven Brown (317) 881-3849 300/1200 Baud
---	---

Milwaukee RBBS/RTPM Milwaukee, Wisconsin M-F 6PM-8AM, 24 hrs. S-S	Steve Cross (414) 291-5011 300/1200 Baud
---	--

Puget Sound RBBS/RTPM Seattle, Washington 24 hours, 7 days	Norm Gregory (206) 325-1325 300/1200 Baud
--	---

Eastern S. Dakota RBBS/RTPM Brookings, South Dakota M-Sat. 6PM-8AM, 24 hrs. Sun.	Barry Kempfert (605) 697-6383 300 Baud
--	--

Minnesota RBBS/RTPM Mound, Minnesota M-F 6:30PM-10PM S-S 9AM-10PM	Michael Morrison (612) 472-2218 300/1200 Baud
--	---

Waitsfield RBBS/RTPM Waitsfield, Vermont 8AM-8PM 7 days	Ted Jerome (802) 496-4123 300/1200 Baud
---	---

Corrections:

Washington D.C. RBBS/RTPM
Phone number correction— (301) 490-6843

Northwestern Ohio RBBS/RTPM
Hours change— M-F 6PM-9AM, Sat 12 noon-9AM Mon

San Diego RBBS/RTPM
Hours & Baud rate changes— 24 hrs., 300/1200 Baud

Denver RBBS/RTPM
City location— Montrose, CO
Phone number— (303) 249-1949

Mansfield, Ohio RBBS/RTPM
New phone: (419) 522-0267

Deletions:

Oregon RBBS/RTPM, Gary Wells (503) 281-7653

Milwaukee RBBS/RTPM, John Hirsh (414) 476-2995

Central Ohio RBBS/RTPM, Ralph Ruh
(614) 687-6413— has gone private, his line
is only for Sysops in the network.

Disk of the Month

The EpsonConnection will begin offering a monthly disk containing programs taken from the Public Domain. We will attempt to make each disk contain programs that have similarities such as Utilities, Modem Programs, Basic programs, etc. These programs will be provided on a quality disk, postage paid, in a disk mailer for \$15.00. Each disk will be identified by a disk code such as EC-1. When ordering please be sure to advise the disk code.

This month's offering:

EC-1 — Telecommunications and Utilities

- ALTDISK.SYS - Use to read 10 different disk formats
- BAUDSET.SYS - Directly set the RS232 Serial port baud rates
- BUFEXQX.COM - Modem program for use with Compuserve
- CHGLIB.COM - Use this program to alter phone directory in modem programs. Doc file included on disk
- COPY.SYS - Copies complete system tracks to another disk
- FORMAT.SYS - Program to format a QX-10 disk to make it ready for data or executable files
- LIST.SYS - TPM directory program
- PRINT.SYS - Prints a document to printer with date and time and filename at top of page
- YSGEN.SYS - Copies tracks 0 and 1 from a TPM system disk
- NI.COM - Directory program with extra available features under the help menu accessed by typing NI/H RET
- M727EP03.COM - Modem 7 series communications program setup up to default to 300 baud on startup
- M727EP12.COM - Same as above, but comes up at 1200 baud
- M7LIB.COM - Allows the changing of the telephone directory built into the MDM720 series and above
- M7LIB.DOC - Documentation for above
- M7FNK.COM - Program that allows you to set up function keys to send a character string in the MDM720 series and above. Useful to set up your frequently used logon sequences.
- M7FNK.DOC - Documentation for above

The remaining programs on this disk are various versions of popular MDM7 series of programs written by Irv Hoff. This disk is a must for anyone interested in working in the telecommunication area.

To receive this disk, send your check or money order (U.S. Funds) to EpsonConnection, P.O. Box 14027, Detroit, MI 48214. Order disk Number EC-1.

THE EPSON QX-10 USERS GUIDE by Jim Hansen, reviewed in the past issue, is now available in selected bookstores or directly from Scott Foresman, at a reduced price of \$17.95. Scott Foresman, 1900 East Lake Avenue, Glenview, IL 60025.

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STATISTICAL ANALYSIS

For the Osborne (TM), Epson QX-10 (TM), or Apple II (TM) CP/M (TM), MBASIC (TM), AND 64k RAM required

The GUYL-DB Statpak (c) consists of two sets of programs — one for keyboard entry of data and the other for construction of databases upon which multiple analyses may be run. The programs were developed at a leading California university by a prominent statistician and educator. They are now in use by many universities, institutions, and individuals.

45 USER-FRIENDLY PROGRAMS are included with complete documentation including instructions for transformations and redimensioning for greater design flexibility. Descriptions and applications for all programs are included.

Included are programs for designs of Analyses of Variance utilizing various combinations of nested and crossed variables with equal or unequal groups or numbers of scores; other parametric programs such as programs to determine homogeneity of variance, trend analyses, tests for orthogonality, pair-wise and multiple-mean comparisons, simple main effects and interaction analyses; correlation (Spearman rank correlation and Pearson product-moment); non-parametric programs for analysis of ordinal, nominal and dichotomous data; multivariate analysis programs such as discriminant function analysis, bivariate and multiple-regression, Thurstone scale analysis, factor analyses, and cluster analyses. Several ancillary programs are included which among other things, evaluate F-ratios, chi-square, z, t, and r values, cross-tabulate databanks and produce descriptive statistics.

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MICRO/RESEARCH

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Osborne is a trademark of Osborne Computer Corp. Epson QX-10 is a trademark of Epson America, Inc. Apple II is a trademark of Apple Computer Corp. MBASIC is a trademark of Microsoft Corp. CP/M is a trademark of Digital Research, Inc.

Questions & Answers

Q— After buying a modem what do I need to do to communicate with other computers? Will it be a problem to communicate with Apples and IBM's? My employer requires some reports from me on an overnight basis. If I can communicate with the company's IBM Series 34, I can save myself hundreds of miles on the road each month. Will it matter what modem I buy? —Dirk Ekey, Russell, KS.

A— First the modem has to be properly connected to the computer with the appropriate serial cable, or installed inside the machine in the case of an internal card modem. You may use the Valdocs Mail telecommunications ability, or obtain one of the public domain communications programs available from our disk library (See catalog EC-1 listed in this month's issue). It is not a major problem to communicate with other computers, but because the CPU is different,

both computers must be setup using the same type of communications signals so that both computers can properly handshake. MTERM is a communications program included with the new CP/M-80 B release from Epson. One of the features of MTERM is the ability to set the proper parameters in the program to enable you to communicate with a mainframe computer such as the IBM 34. You will need to get the information from your company on what stop bits and parity are supported by their IBM. In regards to modems there are now several which work with both Valdocs and the MTERM type of programs. We have mentioned the Hayes smart-modem, the Promethius, and the Communicator by Comrex. If you are planning on doing a great deal of communications on the phone line you will want to get a 1200 Baud modem to shorten the information transfer time.

Q— Do you know of an uncomplicated program to handle one's personal finances, like checking accounts, in and out, and financial statements for the QX-10?

A— The HOME ACCOUNTANT by Continental Software is a very user friendly piece of software with excellent documentation. Continental Software is located at 11223 S. Hindry Ave., Los Angeles, CA 90045, (213) 417-3003. It costs around \$100.

Q— When printing a Valdocs file using PRINT, the FX invariably executes a number of CR/LF before printing the file, even if the <T> op of page margin has been set to "1". —Peter Hansen, Orange City, IA.

A— This problem has been resolved with a fix for Valdocs 1.18. This should be available through your dealer or distributor. The selection of <T> op of page margin does indeed become active with this fix.

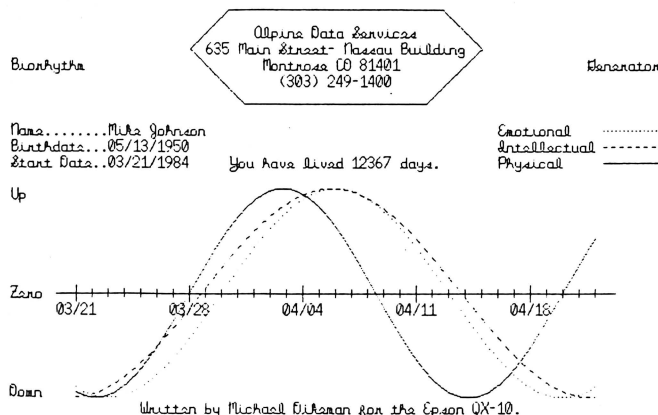
Q— When I select a starting page (other than 1), say 2, and do not otherwise change the print menu, nothing happens; nothing prints and I am returned to the editor. —Thomas Zurflied, St. Petersburg, FL.

A— This problem has been resolved with a fix for Valdocs 1.18. This should be available through your dealer or distributor. The new print menu is much clearer, and offers the choices in an understandable fashion which works.

Q— I would like to know how to send control codes directly to my printer to change the tpestyles. —B. Gragg, Claremont CA.

A— There is a public domain program called FXPRINT.COM which is menu driven and allows the selection of print types to be sent directly to the Epson printers. There is also a device manufactured by Dresselhaus Computer Products located at 837 E. Alosta Ave., Glendora, CA 91740, which lets you select print codes and operations. This product is called Finger Print. We will be reviewing this in a future issue.

INTRODUCING EPSON QX-10 BIORHYTHMS



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Public Domain Epson Printer Programs

PRINTER CONTROL DOCUMENTATION

Maple Office Supplies has created a diskette with printer control commands for use by QX-10 customers. This CP/M data diskette contains a number of files that can be used to set printer parameters:

COMPRESS	COMPRESS.COM
DOUBLE	DOUBLE.COM
ELITE	ELITE.COM
EMPHASIZ	EMPHASIZ.COM
ENLARGE	ENLARGE.COM
NORMAL	NORMAL.COM
PICA	PICA.COM
	BRUN.COM

The files in the left column (no extension) are referred to as VALDOCS files and are intended for use with the VALDOCS word processor. The files in the right column are referred to as CP/M files and are intended for use with CP/M and/or TPM.

The file name identifies the printer function. Except for the ENLARGE function, all functions work identically with VALDOCS, CP/M and TPM. The enlarge function works differently in VALDOCS.

INSTALLATION

Many different installation options are available. The installation procedures described below are intended to provide the maximum amount of flexibility with the least amount of effort.

VALDOCS files should be copied to the VALDOCS data diskettes which contain word processing data files. The standard VALDOCS single file copy facility should be used or the CP/M PIP command may be used.

CP/M files should be copied to CP/M system diskettes with the PIP command. When the CP/M commands are used through TPM, the BRUN.COM file must be placed on VALDOCS system diskettes (the other CP/M files may be placed on either system or data diskettes). The CP/M utility COPYDISK may also be used to copy the contents



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**DISK I/O
CONSOLE I/O
PRINTER I/O**

of the entire diskette to a new diskette.

VALDOCS

- VALDOCS automatically clears all printer parameters whenever it prints a document. Therefore, it is necessary to place printer control commands on the first line of the document. Only a single printer control command may be placed. Since printer control commands consist of non-printable characters, the best procedure for placing printer control commands is to copy a non-VALDOCS file into the first line of the document.

The procedure for copying files is as follows:

1. Create the document in the usual manner
2. Enter the Quirks menu (Control-Q or via 'HELP' key)
3. Use the Retrieve-Non-Indexed file option ('R')
4. Enter the desired print command (EX: 'COMPRESS') filename
5. Return to the VALDOCS editor (via 'UNDO')

The first line of the document will now contain the invisible print control command. The first line will appear to be blank, text will begin on the second line. Store the document before printing.

CP/M AND TPM

The CP/M printer function files are actually compiled basic programs. BRUN.COM is required to execute these programs and must be present in the logged drive when the function is used. The procedure is invoked using the printer function commands as follows:

1. Log onto the drive containing BRUN.COM
2. Enter the desired print command (EX: 'COMPRESS')

The print function programs print an acknowledgment response (Ex: 'THE PRINTER IS NOW IN COMPRESSED MODE') upon successful transmission of the command to the printer. If a response does not appear on the screen, check the printer and connecting cable. In CP/M and TPM, multiple print commands may be used (Ex: COMPRESS and DOUBLE).

These programs can be downloaded from the EpsonNet RBBS. A disk containing these programs can also be obtained by sending a disk and mailer with a check for \$6.00, or by just sending a check for \$10 with a return label. *Be sure to clearly specify what you are requesting.

Documentation provided by Maple Office Supplies, Southfield, Michigan.

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File Extensions- User Tip

Have you wondered what these three letter endings at the end of file-names are? This is a secondary name given to a file, generally to help designate what type the file is. The extension can be just about anything including blank spaces. There are some generally accepted file extensions which we will mention briefly here:

.ASM — is an assembler source file— it can be run only after it has been compiled and loaded using the proper assemblers and load programs.

.BAK — is the original version of a file created by a text editor program from which another newer version of the file has been created.

.BAS — This indicates a file created in basic, and can be run in basic.

.COM — This is a machine language program ready to run in whatever operating system it was written for.

.CPM — Is a .com file which has been renamed with this extension to differentiate it from a TPM type program. It is frequently used on EpsonNet Bulletin Boards.

.DOC — This is a text file describing the function or use of a particular program.

.FIX — This has been used to indicate a file which has been created to fix a problem or bug in another program.

.HEX — This is a file created by a Z-80 assembler, and is a non-executable file.

.HLP — This is usually a text document created to help a user.

*The following HX-20 extensions have been proposed as a standard, and have not been finalized yet. All HX-20 basic programs are in the ASCII format.

.HXB — This indicates an HX-20 Basic program. This has to be renamed to .BAS to run.

.HXD — This indicates a text document about the program it is named for.

.HXH — An HX-20 machine code program in Intel HEX format.

.HXP — This is a basic and machine code program for the HX-20. The machine code program is POKED into memory from the basic program.

.HXS — This is a machine source code listing for the HX-20.

.INF — This indicates an information program like RBBS.inf which is a listing of the RBBS/RTPM boards in the EpsonNet system.

.LBR — This is a set of programs contained within a library created by the program LU.COM.

.OVL — An overlay like a menu screen for another program usually with the same filename. This is a non-executable program and is executed by a primary program.

.SYS — This is the extension used with TPM to indicate it is an executable program. Like SETUP.SYS.

.TPM — Is a .SYS file renamed to .TPM on the bulletin boards to differentiate it from CP/M programs. It will need to be renamed to .SYS to be run on the QX-10.

.TXT — This indicates the file is a text file.

.VAL — This is the extension used to indicate a Valdocs document file. This file contains imbedded control codes created by the Valdocs editor.

.\$\$\$ — This indicates a temporary storage data file and is always empty. It is also the extension given a file when the complete file was not copied, either due to lack of space, or copying errors.

.-Q- — A "Q" in the middle of a file extension of any of the above indicates that the file has been "Squeezed" and that it will need to be "unsqueezed" before it can be run. (See Jan. issue p2).

USER COMMENT: You can now get to "Dow Jones Utility" either by joining MCI mail (it is now on their menu and can be accessed directly that way), or use one of the "modem" programs, but you will have problems with line feeds on the screen. However, the information will still go to the printer just fine.
H. Gerald Oster, Baltimore, MD.

SUPPORT PRODUCTS for EPSON COMPUTERS		
HX-20		
* HX-FORTH Compiler (2-8K Proms-Cassette of utilities)		\$ 195
* ST-2 Analog Module with 32 A/D inputs, 32 relay outputs, 2-8 bit counters, many options including D/A		\$ 795
* BOOKS, STARTING FORTH (\$16) THE COMPLETE FORTH (\$15)		
* HX-20 TECHNICAL MANUAL over 360 pgs with schematics		\$ 40
* AUTOMATIC CHARGER for continuous operation of HX-20		\$ 39
QX-10		
* QX-10 TECHNICAL MANUAL over 220 pgs with schematics		\$ 40
* QCS HARD DISK DRIVE with both TP/M & CP/M Operating Systems installed. 10 to 84 Mbyte Capacity. Ready to go on your QX-10. Price & Information on Request		Call
* The QX-10 BOOK Includes Valdocs, CP/M, Telecommunications, Printer Interfacing and much more		\$ 15
* QX-PC Add the MS-DOS operating system to your QX-10		\$ 795
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International Local Users Groups

According to Zip Code

USERS GROUPS — ACTIVE

This is a listing of some of the Active Epson Users Groups. If your group is not listed please let us know for future listing purposes. Omission of a group is not intentional, our power went out while working on the list, and the Winchester drive and computer are back up and going.

Massachusetts Epson User Group
David S. Calverley, Ph.D.
P.O. Box 205
Pocasset,
MA 02559

Epson Users of W. Attleboro MA
Nexus Buss. Sys./Carol McGuirk
860 Landry Ave.
N. Attleboro,
MA 02760

Finger Lakes Epson Users Group
Joe Bernheim, Computer Circuit
148 Main St.
Dansville,
NY 14437

QX-10 Users Ensemble (QUE)
Dough Willis
73 Macbeth Street
Rochester,
NY 14609

National Epson QX-10 Users Gp.
Richard Shoemaker
Box 1076
Lemont,
PA 16851

Epson Computer-Capital User Gp.
Steve Weber/James Kranda Sec.
6312 Lakeview Dr.
Falls Church,
VA 22041

Washington D.C. QX-10 Users Gp.
Steven Weber
7306 Hooking Rd.
McLean,
VA 22101

Carolina Heath Users Group
Janet C. Hoyle of Hoyle & Hoyle
716 S. Elam Ave.
Greensboro,
NC 27403

Grand Stand Epson Computer Clb.
John Gatch
P.O. Box 14083
Surfside Beach,
SC 29587

Valdocs/TPM Users Group
George Harris
P.O. Box 1082
Oak Ridge,
TN 37831

Memphis Epson Users Group
Michael Otto
1128 South Prescott Street
Memphis,
TN 38113

S.E. Mich. Epson Forum
Ty Sfat
849 Balfour
Grosse Pointe Pk.,
MI 48230

QX-10 Users Group of Urbana IL
Elizabeth A. Sandage
1103 Silver St.
Urbana,
IL 61801

Epson Computing Group
George Vensel
400-2 DeYoung
Marion,
IL 62959

Epson QX-10 Users Group/Tulsa
Ken Frazier
5229 S. 68 E. Ave.
Tulsa,
OK 74145

Metroplex Epson Users Group
Steve Mitchell
P.O. Box 85050
Dallas/Ft. Worth,
TX 75085

Jan Cotton
Computers, Inc.
Houston,
TX 77077

QX-10 User Society
Joseph P. Gayder
P.O. Box 37049
Houston,
TX 77237

PSC Computers Group
David Barrett
2934 Santa Monica Blvd.
Santa Monica,
CA 90403

Epson Computer Club of America
634 E. La Veta Ave.
Orange,
CA 92666

Epson Computer Club of America
Mike Perrett
Box 1772
Santa Anna,
CA 92702

Monterey Bay QX-10 Users Group
Will Dossell
3606 The Barnyard
Carmel,
CA 93923

Epson Salts: N. Peninsula User
Rod Johnson/Diane Pyke
125 Del Centro
Millbrae,
CA 94030

QX-10 Epson Users of Hawaii
David Zundel
P.O. Box 3167
Honolulu,
HI 96802

EPUG
Ted Martino
3100 Bell Ave.
Eugene,
OR 97402

Northwest Epson Users Group
Klaus Hagel
c/o Tri Computers P.O. Box 11089
Tacoma,
WA 98411

Epson Users Group Vancouver
J. Lloyd Sigurdson
Box 80391
Burnaby,
BC V5H 3X6

HX-20 Users Group
25 Sawyers Lawn/Drayton Bldg. Rd.
London/Ealing,
London W13

USERS WISHING TO START LOCAL USERS GROUPS

We have received hundreds of requests by users interested in starting users groups and have been listing them as space has permitted in this publication. The following list includes those not listed previously. We hope this helps more users find each other. Remember that Epson America is providing Starter Group Packages and application forms for those wishing to become "officially" registered with them.

Christine Burton
105 Grovers Ave. #2
Winthrop,
MA 02152

T. N. Robinson
1 Ocean Ave.
Block Island,
RI 02807

Lonny J. Brown
Box 83 Old Mountain Road
Greenfield,
NH 03047

Michael Bernet
27 Golden Hill St.
Milford,
CT 06460

Anthony Gardner
P.O. Box 791
Waterbury,
CT 06720

A. Donald Duncan
228 Thornwood Rd.
Stamford,
CT 06903

Max Feldman
9 Haddonfield Drive
Parsippany,
NJ 07054

John B. Schaeffer
524 Colonial Road
Franklin Lakes,
NJ 07417

F. Tom Marotta
680 West End Ave. 3D
New York,
NY 10025

QX-10 Users Group of Pitt.
Carol L. Reddy
5 Wood Street
Pittsburgh,
PA 15222

Carlos Irizarry
1025 Clearview Drive
Middletown,
PA 17057

Sylvia Stengle
520 W. 3rd St.
Bethlehem,
PA 18015

Marvin E. Jaffe
2100 Packard Ave.
Huntingdon Valley,
PA 19006

Frank Velez
8 Murfield Ct.
Newtown Square,
PA 19073

David C. Lord
852 N. Reading Ave.
New Berlinville,
PA 19545

Jerry Smith
62 North Chapel Street
Newark,
DE 19711

Denise L. Hope
509 Perth Lane
Clinton,
MD 20735

Philip R. Lamb
1107-C Spring Street
Silver Spring,
MD 20910

John C. Hiers
1220 Santa Anna Rd.
Richmond,
VA 23229

Bob Bastek
4141 Virginia Beach Blvd.
Virginia Beach,
VA 23452

Barbara J. Kirby
251 Maitland Ave.
Altamonte Springs,
FL 23751

A. Allen Benton
5012 Rollingway Rd.
Chesterfield,
VA 23832

Diania D. Kelley
1895 Roundhill Road
Charleston,
WV 25314

Anthony J. Maddox
Rt. 3 Box 55
Hurricane,
WV 25526

Raymond J. Talbot Sr.
909 Greenwood Rd.
Chapel Hill,
NC 27514

Epson Users Group
Thomas P. Winslow
Route One, Box 388
Troutman,
NC 28166

James D. Norris
P.O. Box 1315
Gainesville,
GA 30503

Mark T. Kerrin
P.O. Box 2546
Jacksonville,
FL 32209

William A. Cottrell
225 Ocean Spray Ave.
Satellite Beach,
FL 32937

Kaye & Rich Mauldin
150 Ruby St.
Rockledge,
FL 32955

William S. Yerkes
1100 NW 95th St.
Miami,
FL 33150

Rev. Nicholas Maestrini
1550 Beach Road
Tequesta,
FL 33458

Spencer M. Marlow
1615 Poinciana Rd.
Venice,
FL 33595

Jack Miller
P.O. Box 24837
Tampa,
FL 33623

T. W. Armstrong
1505 Sparkman Drive #189
Huntsville,
AL 35805

Mae R. Cox
450 Pinehill Dr.
Mobile,
AL 36606

R. W. Burk
6645 Birch Run Lane
Memphis,
TN 38115

Alan D. Starnes
P.O. Box 7101
Akron,
OH 44306

Art & Dorothy Fuerstenberg
29676 Club House Lane
Farmington Hills,
MI 48018

Thomas D. Vetterani
9720 Lakewood
Grosse Ile,
MI 48138

Kemit S. Grafton
8004-B N. Alaska
Wurtsmith AFB
MI 48753

Stephen H. Wolf
8386 S. Federal Rd.
Shepherd,
MI 48883

Paul D. Grunwaldt
2302 Treehaven Drive
Kalamazoo,
MI 49008

James Papcun
921 Sunset Drive
Norwalk,
IA 50211

Glenda Pooley
1331 W. Main
Rapid City,
SD 57702

Users Group of Kansas City, KS
Mike & Walt Russell
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Leawood,
KS 66206

Pat & Don Clement
5612 Bridget Street
Metairie,
LA 70003

Epson Users Group of Louisiana
Max Rochlen
Fechstags,
LA 70436

Henry Alsmeyer
1901 Creekwood Drive
Conway,
AR 72032

Rocklin D. Lyons
Rt. 2 Box 185
Newcastle,
OK 73065

Ann & Bill Owen
3224 N. Roff
Oklahoma City,
OK 73112

C. N. Blackford
518 Houston
Muskegee,
OK 74403

Lonnie Williams
112 S. Haskell
Dallas,
TX 75226

QX-10 User Society
Joseph P. Gayder
P.O. Box 37049
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TX 77237

Houston QX-10 Users Group
Kent Lambert
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LaPorte,
TX 77571

Ron Christy
1817 Jerome
Kingsville,
TX 78363

John O. Topf
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Louisville,
CO 80027

Scott G. Converse
#358 Crossroads Center
Boulder, CO 80301

John J. Browne
6681 Arapahoe Rd.
Boulder,
CO 80303

Robert M. Busch
902 W. Gleneagles Dr.
Phoenix, AZ 85023

Bill Edwards
1808 E. Oxford Dr.
Tempe,
AZ 85283

Danny J. Leavitt
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Las Vegas,
NV 89103

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Melvin D. Solomon
11455 Carlsbad Rd.
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Daniel Paquette
250 3/4 South Hobart
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CA 90004

Carol Agate
750 S. Spaulding Ave.
Los Angeles,
CA 90036

Martin M. Goldstein
832 Cedar Street
Santa Monica,
CA 90405

Tecstop
Max Rochlin
1125 S. Central
Glendale,
CA 91204

HW Computer-Northridge
Cecil Bandavid
19511 Business Center Dr.
Northridge,
CA 91324

The Magic Cursor
Camille Dixon
402 West Arrow Hwy.
San Dimas,
CA 91773

Epson Users of San Diego
Dennis Dreyer
P.O. Box 87448
San Diego,
CA 92138

Mickey Ask
805 Pacific
Redlands,
CA 92373

Tom Northey
1027 E. Alamos
Fresno,
CA 93704

Epson Salts
Rod Johnson Pres.
1107 Glacier Ave.
Pacifica,
CA 94044

William J. Smith
10 Hibiscus
FPO San Francisco,
CA 96630

Hollis Ferguson
1160 Kelli Court
Independence,
OR 97351

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OR 97756

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Seattle,
WA 98105

Hird Matsusaki
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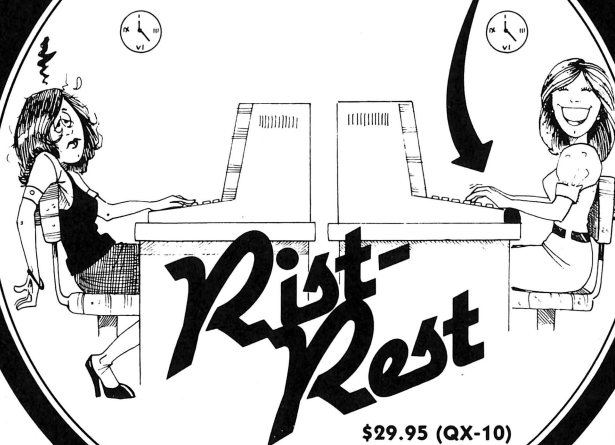
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Printer Corner

SENDING CONTROL CODES TO THE PRINTER IN PEACHCALC

by Richard Rockwell
Technical Support Staff
Epson Midwest (Bristol, PA)

Peachcalc has a "Setup" routine that allows you to send control codes to Epson dot matrix printers. Follow the instructions in the Peachcalc Manual for this procedure and match up the appropriate codes from your printer manual. A list of control codes for some of the more common typestyles is below.

NOTE: Once you set the printer for a particular typestyle, it will stay in that mode until you turn the printer off or you send the code to initialize the printer.

The following are the Peachcalc commands for the "Setup". The character on the left is the character to enter into Peachcalc.

/ for command mode

If you do not want to print the border, input the following:

G(lobal)
B(order)

To print:

O(utput)
D(isplay)
(enter range)

S(etup)

S(etup)

(enter codes at this point, then RETURN)

P(rinter)

NOTE: When you enter these control codes, they will not appear on the screen, so be careful to enter them accurately.

The following are some of the control codes you can use. When capital letters are typed below, you must enter a capital letter. "^" refers to the CONTROL key. To type a "E", for example, hold down the CTRL key, and the SHIFT key while typing the "E". Do not space between control codes. "ESC" refers to the MAR REL key (or to the stop key for Peachtext 5000).

For wide spreadsheets, you may need to use the W(idth) command under S(etup).

Initialize the printer ESC @
Compressed ^O
Expand first line ^N
Superscript. ESC S ^@
(prints the whole document in superscript)
Subscript ESC S ^A
Double Strike ESC G
Emphasized ESC E
Set Line Spacing ESC 3 N
(for N/216")
EX: ESC 3 H will set line spacing for 48/216"

Combinations:

Compressed superscripts . . ^O ESC S ^@
Compressed superscripts with line spacing adjusted to 7/72" . . . ^O ESC A ^G ESC S ^A
(this prints in very small letters with the line spacing adjusted to look like normal line spacing.)

THIN PRINTER

The "Thin Print 80" by Axonix is another entry into the market of printers for notebook computers. Battery powered and weighing only 4 lbs., this thermal printer has a 2K buffer, graphics capabilities, and prints bidirectionally at 40 cps. Its suggested retail price is \$279. Contact Axonix Corporation, 417 Wakara Way, Salt Lake City, UT 84108.

SPRINTER

The "Sprinter" portable printer has been released by Micro Peripherals, Inc. It weighs 16 lbs. and is equipped with a SoftSwitch keypad that allows control of tab settings, character sets, form feeding, baud rate, characters per inch, verticle tab stops, and automatic page-break settings. Two paper feed options are allowed, including a convenient frontfeed device. Near letter quality printing can be accomplished at 160 cps. The standard 4K buffer may be expanded up to 64K. Suggested retail price is \$795 (with the serial board necessary for use with the HX an additional \$110). Contact Micro Peripherals, Inc., 4426 South Century Drive, Salt Lake City, UT 84123.

HR-5

Brother International Corp. also has an entry in the market of printers for portable computers. The HR-5 is a thermal transfer printer with 4 character styles, graphics capabilities, and prints bidirectionally at 30 cps. The optional ribbon cassette allows for printing on ordinary paper. Priced at \$225, this 3½ lb. printer may be battery powered or used with an AC adapter. Contact Brother International Corporation, 8 Corporate Place, Piscataway, NJ 08854.

Transform your MX-80 or RX-80 into a friction feed printer with the \$39.95 Micro-Grip Friction Feed option. Contact Bill Cole Enterprises, Inc., P.O. Box 60, Dept. MC, Wollaston, MA.

The LQ1500 Epson printer is now being shipped. We will be reviewing it in the near future.

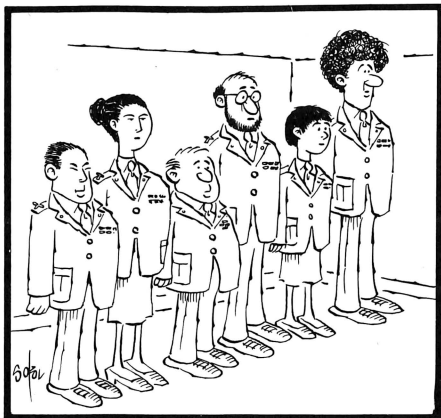
MERGE-IT

A user friendly program that allows a QX-10 user to merge addresses from the Peachtree mailing list, or any mailing list, with Valdocs letters. The program is completely documented with free support.

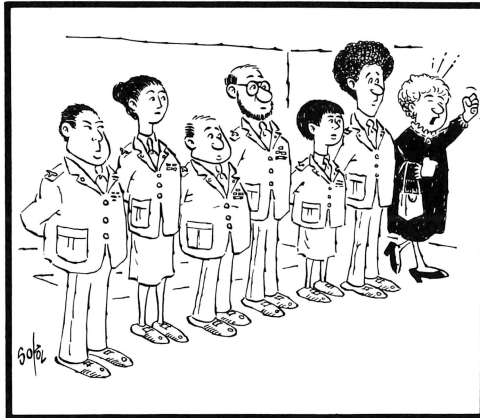
Features include the ability to merge multiple page letters, insertions of up to 99 fields, both as headings and in the body of the letter. You can choose correspondence quality and single sheet mode.

The instructions in the documentation and on the screen while using MERGE-IT will easily step you through the program, so that even the novice can immediately begin to use the benefits MERGE-IT has to offer.

To receive your program disk which includes everything necessary to get started, send a check or money-order for 29.95 to:
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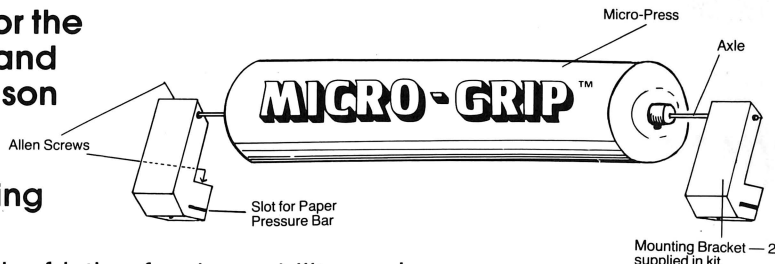
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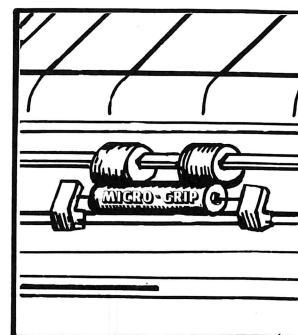
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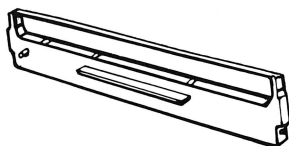
Micro-Grip™ IV has been designed for Epson MX-70/80, RX-80 and printers based on the Epson design, such as the IBM PC, Commodore and H.P.



Printing will start approximately 1½" from the top of the page.

#670 Micro-Grip™ IV

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#646 Epson MX-100

9.75/ea.

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*NOTE: Micro-Grip™ is not a substitute for a letter quality printer. It is a retrofit mechanism for the purpose of obtaining single sheet correspondence from your tractor feed printer.



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IF YOU OWN A QX-10, YOU OWE IT TO YOURSELF TO GET QXDRAW!

How Abt this?
R7

WHAT IS QXDRAW?

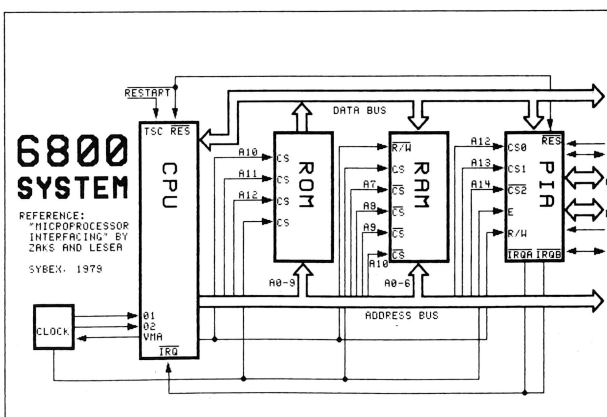
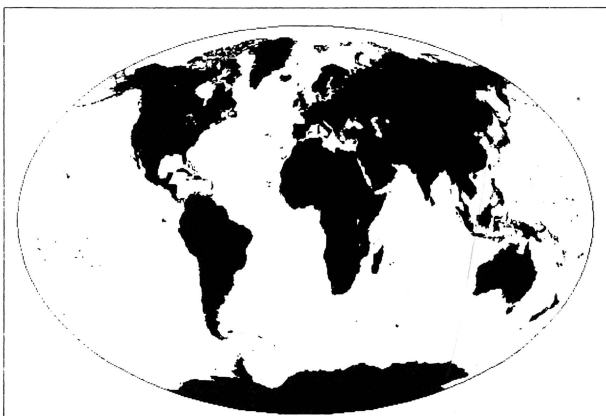
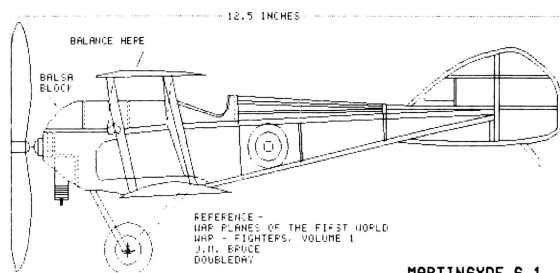
QXDRAW is a powerful graphics design tool that exploits the excellent graphics capabilities of the Epson QX-10. It allows someone unfamiliar with computers to design and draw figures, charts, schematics, or blueprints in no time. QXDRAW has the capability to store, retrieve, and print figures drawn on the screen. In addition, it can fully manipulate figures and text by changing size, angles, and dimensions.

QXDRAW —

- * Provides an easy-to-use cursor that can be moved about the screen.
- * Draws straight lines between points on the screen.
- * Draws curves between points on the screen.
- * Draws circles and ovals easily.
- * Allows solid, dotted or dashed lines to be used.
- * Allows lines of varying thickness to be used.
- * Includes "area fill" capability.
- * Features the Epson function keys: HELP, UNDO, STORE, RETRIEVE, PRINT, INDEX, and STOP.
- * Allows text to be displayed at any location, size, or angle.
- * Stores and retrieves the screen display on disk.
- * Prints the screen display on Epson printers.
- * Allows figures and symbols to be created, stored, and retrieved at any location, size, or angle.
- * Allows text and figures to be slanted in any direction, giving modern or three-dimensional effect.
- * Provides for user-created files to be input and displayed on the screen. This allows data from other programs to be used.

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